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ORIGINAL ARTICLES.

GLYCOSURIA—ITS COMPLICATIONS AND THERAPEUTICS.

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In a former paper[1] I reviewed the pathology of glycosuria, designing in this to present a series of cases, but the literature of the complications of the disease has proven so voluminous, that I defer the grouping and detail of such cases as have come within my observation to a future time, confining myself now to an attempt to deduce a few rational principles of therapeusis from the mass of observations now before the profession. Glycosuria is a secondary complication of many diseases; the treatment of the primary affection cures the glycosuria without affecting it other than indirectly. The secondary nature of the glycosuria is ignored, and it is regarded as amenable to treatment which could affect it, if at all, only indirectly. Glycosuria appears and disappears under certain conditions with equal facility, whether treatment be followed or neglected. Such elements of error must be eliminated before the therapeutical relations of glycosuria can be determined. It, therefore, becomes necessary at the outset to pass in review the affections of which glycosuria is a secondary complication and the conditions which give rise to it, and, as a further ground for investigation, to discuss the secondary complications of the disease. The affections of which glycosuria forms a secondary complication are first and foremost the neuroses; hysteria is complicated by glycosuria of transitory, or relatively prolonged, duration, which may eventuate in seeming glycosuric coma, but which disappears with the disappearance of the most marked hysterical symptoms, as witness the cases reported by Le Grand Saulle,[1] Seegen,[2] Rognosi,[3] Wagner,[4] Shingleton Smith,[5] Waterman,[6] Marchal (de Calvi),[7] and Kiernan.[8] Braun,[9] Eulenburg,[10] Marchal (de Calvi),[11] and Rosenstein[12] have observed glycosuria during sciatica, which disappeared on recovery. Delpech[13] has had under observation a paretic dement, in whom glycosuria existed from the onset of the psychosis. During the apoplectiform and epileptiform attacks of that psychosis and after the gastric crises of locomotor ataxia, glycosuria has been noted. It has also been observed after epileptic convulsions, especially after the *status epilipticus*. Bumm[15] finds that delirium tremens is often attended by more or less glycosuria.

Sciatic nerve-stretching and section produces glycosuria, as witness the cases reported by Wiet,[1] Marcus[2] and Schiff.[3] Tetanus is at times complicated by glycosuria, as in the case reported by Vogel.[4] Chorea major also at times co-exists with glycosuria, as in the case coming under the observation of Von Franque.[5] It succeeds the choreic movements and continues till recovery. Cases reported by Fischer,[6] Goolden,[7] Fritz,[8] Itzigsohn,[9] Dompeling,[10] Griesinger,[11] Plagge,[12] Kaemnitz,[13] Mösler,[14] and Ollivier,[15] show that cerebral tumors, skull injuries, and apoplexy, bear a very similar relation to glycosuria.

Snell,[16] Madigan,[17] Cotard,[18] de los Santos,[19] and Kiernan,[20] report cases in which glycosuria and the psychoses alternate; during the mental disease glycosuria is not present and the appearance of glycosuria is an indication of recovery; its disappearance is the precursor of an attack of insanity.

Glycosuria is among the symptoms produced by certain drugs; amyl nitrite,[21] ammonia,[22] carbolic acid,[23] carbon chloride,[24] carbonic oxide,[25] chloral hy-

[1] Boston Medical and Surgical Journal, Vol. CVI.

1 Les Hysteriques
2 Diabetes Mellitus auf zahlreichen beobachtungen.
3 Lancet, 1852
4 Ibid, 1853.
5 British Medical Journal, April 7, 1883.
6 Medical Record, Vol. 23.
7 Récherches sur les accidents diabetiques.
8 Gaillard's Medical Journal, Sept. 1883.
9 Lehrbuch der Balneotherapie.
10 Cyclopædie.
11 Op. cit.
12 Virchow's Archiv Band. XII.
13 Archives de Neurologie tome IV.
15 Berlin Klein Woch., No. 25, 1883.

1 Gazette des Hopitaux, May 24, 1881.
2 Ibid.
3 Untersuchungen über Zuckerbildungen in der leber.
4 Deutsches Archiv für Klinische Medicine, Band X.
5 Jahrbücher für Kinderheilkunde, 1867.
6 Archives générales de Médecine, Tome XX.
7 Lancet, March, 1862.
8 Gazette Hebdomadaire. Tome VI.
9 Wagner, General Pathology.
10 Neder. Arch voor Geneeskunde, Band VI.
11 Archiv. der Hielkunde, Band XIII.
12 Wagner, General Pathology.
13 Ibid.
14 Ibid.
15 Gazette Hebdomadaire, No. 11, 1875.
16 Psychiatrisches Centralblatt, Band XXXVIII.
17 Journal Nervous and Mental Disease, April, 1883.
18 Annales Medico-Psychologiques, January, 1880.
19 Lectures on Insanity.
20 Archives Génerales de Médicine, March, 1877.
21 Harley, Lancet, 1857.
22 Hoffman, Archiv. für Anat. und Phys., 1872.
23 Own observation.
24 Eulenberg, Op. cit.
25 Revue Scientifique, 1874.

drate,[26] codeine,[27] corrosive sublimate,[28] curare,[29] eucalyptol,[30] hydrogen peroxide,[31] iodoform,[32] morphine,[33] nitro-benzol,[34] opium,[35] phosphoric acid,[36] quinine,[37] resorcin,[32] salicylic acid,[32] soda valerianate,[38] turpentine[38] and uranium nitrate.[39]

It would appear that febrile conditions were capable of producing glycosuria sometimes of prolonged duration; thus Zinn[1] finds that in a large percentage of cases of scarlatina in nervous children, glycosuria results; Senator[2] states that intermittent fever is sometimes complicated by temporary glycosuria; Madigan[3] has observed that vaccination, followed by marked rise in temperature in the insane, results in a temporary glycosuria; Gäthgen has had similar experience with other febrile states. Conditions in which the respiration is involved, as in phthisis and cardiac diseases, are, especially if there be well-marked dyspnœa, often accompanied by glycosuria. Abeles[4] has reported many such cases. In cholera glycosuria has been observed as a secondary complication by Huppert,[5] Heintz,[6] Wyss,[7] Buhl,[8] and Gubler.[9]

The complication of pregnancy by glycosuria was denied by Wiederhold,[1] Leconte,[2] and Griesinger.[3]

Blot,[4] Heller,[5] C. G. Lehmann,[6] Kinsten,[7] Brücke,[1] Waterman,[8] Henney,[1] Iwanoff,[9] de Sinety,[10] Ables,[11] Cazeaux,[12] and Hempel[13] have conclusively proven that this was an error. Bennewitz[14] reports the case of a woman who was glycosuric at each successive pregnancy. J. Matthews Duncan[15] concludes that glycosuria may come on during pregnancy and be present during the period of pregnancy only, or it may recur sometime after, or it may come on immediately after pregnancy. Bouchardt,[16] Oppolzer,[17] and Gibb[18] have reported cases in which glycosuria coming on after pregnancy remained for a long period and sometimes permanently; in the first case it disappears suddenly. Mammary abcess and ablation are sometimes followed by glycosuria. Prout,[1] Garrod,[2] Snell,[3] Bence-Jones,[4] Stosch,[5] Rayer,[6] Contour,[7] Schmitz,[8] Claude Bernard,[9] and Charcott[10] have demonstrated that gout alternates sometimes with glycosuria, and that it precedes very often a glycosuria, which thereafter co-exists with it. A. Jacobi[11] has recently reported a case of this latter type. The vaso-motor changes concomitant on senility are, as might be expected, *a priori*, attended by glycosuria generally of an intermittent type and often destitute of well-marked symptoms; concerning it Charcot[10] says "the urine is, as a rule, only slightly increased in amount and the thirst may not be at all marked." It will be obvious from what has been already said that in conditions in which marked cerebral circulatory changes occur, whether from the administration of drugs, from pyrexia, or secondary neuroses, glycosuria may occur; that it may be of temporary duration, may present mild constitutional symptoms and disappear without special treatment. The fact that senility gives rise to an intermittent glycosuria shows the error involved in the report of mild cases of glycosuria, occurring after sixty, as being cured by treatment. The existence of a hysterical type of glycosuria explains the frequent reports of cures of "mild cases of glycosuria in women." The existence of a mild type of glycosuria related to gout seems to lend probability to the view of Bence-Jones[1] that gout and glycosuria were diseases of sub-oxidation. While this is not impossible, the origin of the sub-oxidation still requires explanation and Dyce-Duckworth[2] has shown that gout itself is a trophoneurosis. From the facts cited it is evident: First. That the apparent improvement of glycosuria under treatment in a paretic dement, an epileptic, hysteric, a pregnant woman, gouty individual, or an old person is not of value as evidence of the influence of such treatment on glycosuria. Second. That any of these conditions may give rise to a permanent glycosuria of a mild type. The subject can be best discussed in its other relations after an examination of the secondary complications of glycosuria.

Marchal[3] (de Calvi) has very aptly said that the neurosis occurring during glycosuria have been very frequently regarded as of primary origin, when in reality they were consecutive. Ogle[4] expresses the same opinion. Bouchardat[5] says that neuroses appear to be very frequent among glycosurics who are great meat eaters and take more alcohol than is good for them. Bouchard[6] has not found these two articles of

26 Kane, Drugs that Enslave.
27 Own observation.
28 Rosenbach.
29 Own observation.
30 Own observation.
31 Bericht der Chemisch. Gesell. 1883.
32 Own observation.
33 Kone, Op. cit. Levenstien. Morphiumsucht.
34 Ewald.
35 Pavy, Op. cit.
36 Kulz, Deutsch. Arch. f. Klin. Med, Band XII.
37 Almen.
38 Leconte.

1 Zeimssen's Encyclopædia. Jahrb. f. Kinderh., B. XIX.
2 Hoppe-Syeler Med. Chem. Unters. III.
3 Chicago Medical Review, July 15, 1882.
4 Wiener Med. Woch., 1874.
5 Archiv. der Heilkunde, Band VIII.
6 Senator, Op. cit.
7 Journal de Therapeutique, 1878.
8 Archives Générales de Médecine, August, 1857.
9 Journal de Therapeutique, 1878.

1 Zeimssen's Cyclopædia
2 Journal de Therapeutique, 1878.
3 Op cit.
4 Archives Générales de Médecine, Aug. 1857.
5 Comptes rendus XLIII.
6 Lehrbuch der Physiol Chem. I.
7 Monatschrift f. Geburtsk, June, 1857.
8 Op. cit.
9 Diss Dorpat. 1861.
10 Gazette Médicale, No. 45, 1873.
11 Op. cit.

12 Obsteterics.
13 Hufland's Journal, Band LXI.
14 Archiv f. Synäk, Band VIII.
15 Trans. Lond. Obstet. Soc. vol. XXXVI.
16 Clinique Europ., No. 58, 1859.
17 Duncan, Op. cit.
18 Medical Times and Gazette, July, 1868.

1 Gastric and Renal Diseases.
2 On Gout.
3 Op. cit.
4 Med. Chir, Trans. vol. XXXVI.
5 Lehrbuch der Diabetes.
6 Gazette Médicale, vol. X.
7 Thése de Paris, 1844.
8 Stosch Op. cit.
9 Lecons de Physiol Exper.
10 Maladies de la Viellesse.
11 New York Medical Journal, vol. XXXVIII.

1 Op. cit.
2 British Medical Journal, March, 1881.
3 Op. cit.
4 St. George's Medical Reports, Vol. 1.
5 Op. cit.
6 Maladies par la Relentissement de la Nutrition.

diet to be the exciting causes of glycosuric neuroses. Bernard and Féré[7] are of opinion that the neurotic complications of glycosuria are an expression of the constitutional condition on which glycosuria depends, and are not due to hyperglycæmia. Glycosuria frequently vanishes from the urine just prior to cerebral complications. They divide the neurotic complications of glycosuria into lesions of motility, of general and special sensibility, of the intelligence, and of trophic functions. Among the most marked motor affections may be cited the fatigue, lassitude, deprivation of muscular energy, whose clinical value Marchal[1] (de Calvi) was the first to point out. This affection does not depend on muscular weakness pure and simple; it may be so well marked as to lead to suspicion of a medulla affection. One such case has been described by Laségue[2]. This condition is not always well marked; it may suddenly disappear, to return as suddenly; it may occur first in consequence of a slight traumatism. Paralyses, properly so-called, are rare in glycosuria; they are often localized, partial, and incomplete. They may appear subsequent to an attack of apoplexy, as in a case reported by Laségue[2]. A young man was attacked by apoplexy with complete coma, followed by hemiplegia, recovery from which was rapid; the same phenomena recurred the next year. Aitken[3], Copland[4], and Watson[5] have reported similar cases. Sometimes a sudden loss of consciousness occurs, which is rapidly recovered from without any resulting paralytic phenomena. Vertigo sometimes occurs alone, and sometimes precedes paralysis. Paralytic symptoms occur, as a rule, without vertigo or loss of consciousness. Hemiplegia may be attended by bizarre phenomena. One of Charcot's[6] patients was one night attacked by left hemiplegia; at the same time monoplegia of the right eyelid made its appearance (monoplegia is so frequent an accompaniment of glycosuria, that Bernard[7] and Féré claim that the urine should be examined in every case of this kind). Ogle[8] reports a case in which paralysis of the right arm and face, hesitancy in speech, ptosis, dilatation and strabismus followed upon the disappearance of glycosuria. Kinnicutt[9] and Gregori[10] report similar cases, and such cases are far from exceptional. The monoplegias may be only paretic in character, and extremely transitory. The speech troubles are, as a rule, due to buccal dryness, but true aphasia does occur. Aphonia from laryngeal paralysis is far from exceptional. Imperfect muscular coördination in the dark, attended by formication in the extremities, is sometimes noticed, and may, as in a case reported by Stockvis[1], lead to a suspicion of locomotor ataxia. A case of cervical paraplegia, followed by respiratory difficulty, in which death occurred, has been observed by Lecadre[2].

Kiwatowski[3] has reported a case of paralysis of the patheticus; Féré[4], a case of paresis of the right externus. Galezouski[5] says that paralysis of the ocular muscles occur during the incubation of glycosuria, and that the muscles innervated by the sixth pair are most affected; the paralysis is sometimes only monocular. It usually occurs early, is not accompanied with pain, and is marked by double vision, in which one object is colored. Paralysis of the third pair is marked by crossed diplopia. Patheticus paralysis, which is rare, gives rise to a not very decided homonymous diplopia.

Cramps and convulsions also occur. Cramps often attack the lower extremities especially at night, in which case it is an important element in the production of insomnia; the first indication of cerebral circulatory development, and it may be the precursor of serious complications. Convulsions may be associated with coma or may accompany paralytic phenomena; they present at times the mono-plegic epileptic character and alternate with transitory paralysis of the same side. Vertigo may assume and epileptoid character.

It is of interest from the standpoint of pathogeny to note that paralysis may appear before sugar is detectable in the urine, at the time of its disappearance, or some time thereafter.

These motor phenomena are, in the main, due to rapid vaso-motor changes of central origin. Such an extended character and so great a number of motor phenomena point very decidedly to the inference that in all types of glycosuria, vaso-motor perturbations of decided character and central orgin, occur. It is also evident that coincident with or precedent to the appearance of glycosuria, the vaso-motor centers are affected.

Complete anæsthesia is rare; anæsthetic patches on the thigh have been observed by Laséque.[1] Dionis[2] has observed a case in which both ears were anæsthetic to heat and were persistently cold; a year later they become gangrenous. Neumann[3] has been able to pull hair out of one of his patients without its being noticed. Patients often complain of pressure, coldness or numbness of the extremities, particularly of the lower extremities. Hyperæsthesia occurs in patches and may be present without any co-existing symptoms other than saccharine urine. Glycosurics are very sensitive to external heat and frequently complain of illy defined pains attended by lassitude in the lumbar and dorsal regions, sometime in the cervical; these last were met with in one half of Leudet's[1] cases, the pain resembles the so-called "fox bite" made by boys as a practical joke. Coitus often induces it, and with it cervical stiffness co-exists very frequently. Headache comparable to the weight of a leaden cap is far from infrequent. These pains may take on a neuralgic type. Drasche,[2] like

[7] Archives de Neurologie tome IV.

[1] Op. cit.
[2] *Journal de Med. et de Chir.*, 1882.
[3] Science and Practice of Medicine.
[4] Dictionary of Medicine.
[5] Lectures on Physic.
[6] Op. cit.
[7] Op. cit.
[8] Op. cit.
[9] *Medical Record*, Aug. 25, 1883.
[10] Thése de Paris, 1883.

[1] Archives de Neurologie tome IV.
[2] Cited by Marchal (de Valvi).
[3] Thése de Paris, 1881.
[4] Op. Cit.
[5] Journal de Therapeutique, Feb., 1883.

[1] Op. Cit.
[2] Moniteur des Höpitaux, 1857.
[3] Clinique Med. p. 315.

[1] Bernarn and Féré. Op. Cit.
[2] Wiener Med. Woch. Jan., 1882.

Worms[3] and Buzzard,[4] finds glycosuric neuralgiæ have a tendency to symmetrical development and an agonizing character. Schmitz[5] found that while crural neuralgiæ were not uncommon, sciatic and lumbar were infrequent; he had observed a few cases of cervico-occipital neuralgia and of mastodynia. Drasche[2] had a case of symmetrical intercostal neuralgia. When the right side only is affected this is coincident with painful sensibility of the liver, which Léchorche[6] believes depends upon hepatic congestion. Pruritus vulvæ is very frequent among female glycosurics and Leroux[1] has found general pruritus present in a large number of cases. Sexual impotence occurs and is accepted with apathy. In cases where this occurs early there may be frequently found accompanying and preceding it, according to Verneuil,[2] induration of the corpus cavernosa.

Asthma, other respiratory neuroses and exophthalmic goitre may make their appearance early in glycosuria and may be as transitory as other glycosuric neuroses. Deafness is relatively frequent among glycosurics; it is sometimes slight and fleeting, some times complete. In Prout's[3] opinion it, as a rule, is of purely neurotic origin. Cases like that of Renaudin,[4] however, exist, in which deafness results from otitis media. Trousseau[5] reports a case in which otalgia preceded hemiplegia and fatal coma.

Jordao,[6] Leudet[7] and Lécorché[8] have observed cases in which smell and taste were abolished or perverted.

It is difficult to determine whether glycosuric keratitis, iritis, or irido-choroiditis are due to hyperglycæmia, *per se*, or to concomitant neurotic lesions. Leudet's[1] case would seem to indicate that both these factors played a part at times. Panas[2] insists that a keratitis of unknown origin and rapid course calls for urinalysis, which is also the opinion of C. J. Lundy[3] and Coundourous.[4] Probably eight-twelfths of the glycosurics manifest eye symptoms. Marchal[5] (de Calvi) distinguishes glycosuric amblyopia, properly so called, from simple visual perversion. Alcon[6] has noticed in an emmetropic 61-year-old woman, of healthy antecedents, in whom glycosuria developed after a skull injury, that simultaneously sight became impaired and hypermetropia was evident; vision was reduced one-half. The sugar gradually disappeared from the urine, and, *pari passu*, the hypermetropia. Five months after the receipt of the injury the patient was again emmetropic, and sugar was no longer detectable in the urine. Dionis[7] had a patient affected with glycosuria who saw all objects to the left of their real position and turned half upside down. All varieties of accommodative asthenopia are observed; these vary greatly, and are more marked with hypermetropes than with emmetropes; more marked with these last than with myopes. Glycosuric amblyopia is either slight or grave, and is often the only complication; objects are seen in a yellowish background. Glycosuric presbyopia early occurs and affects the two eyes unequally; it varies at different times. Panas[1] finds that the latter condition results from accommodation-paresis, and the patient seems to be amblyopic; it is found, however, on examination of the ocular fundus, that, at most, a slight papillary congestion exists. All these varieties of accommodative asthenopia are, in Panas'[2] opinion, only an expression of the constitutional condition. With these visual troubles, vertigo—a secondary consequence of them—may coexist. Cataract, as has been pointed out by Galezowski[2] and Lundy,[3] may coexist with, and mask the other ocular phenomena. The onset of amblyopia is sometimes sudden, often insidious; sometimes dyschromatopsia accompanies it. Hemiopia has been observed by Bouchardat,[1] v. Gräfe[2] and Bellouard.[3] Concerning it, Galezowski[4] says: "Some glycosurics find their visual troubles gradually develop until, for some reason, they cannot see as clearly. In other cases the patient, after a violent headache, sees objects in a broken manner, and is at the same time diplopic. Others, after hemicrania, find that vision has suddenly diminished in one eye. In other cases, after an attack of vertigo approximating apoplexy, the patient, on recovery, finds himself blind, but this total blindness is soon succeeded by hemiopia." Hemiopia, in Galezowski's[4] opinion, is very frequently associated with glycosuria.

In certain cases retinitis is observed which does not differ greatly from albuminuric retinitis. The cases observed by Laber,[5] Panas,[6] Mialhe,[7] Noyes,[8] Haltenhof,[9] Jäger[10] and Desmarres[11] show that glycosuria alone can produce such retinitis. Galezowski[1] says that glycosuric retinitis is characterized by hæmorrhages; at times few, at others numerous, sometimes limited, and sometimes markedly extensive. Their multiplicity shows how extensively the vessels are affected and how frequent the rupture of the walls. By the side of these hæmorrhages are to be noticed yellow patches of exudation, sometimes pretty numerous; these shining patches are produced by extravasation of fibrin into the retinal tissue, and, as a rule, exist from the onset. Glyco-

[3] Bull. de l'Acad. de Med. T. IX. S. 20.
[4] Lancet Vol. 1, 1882.
[5] Op. Cit.
[6] Gazette Hebd. 1881.

[1] Thése de Paris, 1881.
[2] Revue Med. Dec. 10, 1882.
[3] Op. Cit.
[4] Annal des. Mal. de l' orille et du Larynx, Jan., 1882.
[5] Clinical Medicine.
[6] Senator Op. Cit.
[7] Op. Cit.
[8] Op. Cit.

[1] Op. Cit.
[2] Annal d' Oculitique, 1881.
[3] Mich. Med. News, June, 1880.
[4] Thése de Paris, 1883.
[5] Op. Cit.
[6] El Giglo Medico, January, 1880.
[7] Op. Cit.

[1] Op. Cit.
[2] Op Cit.
[3] Op. Cit.

[1] Op. Cit.
[2] Gräfe's Archiv. Band IV.
[3] Thése de Paris, 1880.
[4] Op. Cit.
[5] Archiv. f. Ophthalm, 1875.
[6] Op. Cit.
[7] Archiv. f. Ophthalm., 1873.
[8] New York Medical Journal, 1873.
[9] Monatsb. f. Augenheilk, 1873.
[10] Senator Op. Cit.
[11] Ibid.

[1] Op Cit.

suric retinitis frequently results in optic nerve atrophy. The functional troubles vary from simple amblyopia to complete blindness. Hæmorrhagic retinitis may produce complications on the side of the choroid, iris, and crystalline lens. Weinberg[2] and Dufresne[3] have reported cases which confirm Galezowski's[1] views. Desmarres[4] regards hæmorrhagic retinitis as a precursor of oncoming cerebral hæmorrhage. Heyl[5] describes a lipæmia of the retina. Galezowski[1] claims that cataract, which occurs in about ten per cent. of the glycosurics, is frequently the result of retinitis; as a rule both eyes are affected, but the morbid process does not advance in each with equal rapidity. Seegen[1] states that it is due to an impairment of the mitrition of the crystalline lens, and increases with increased excretion of sugar; but this, according to Griesinger,[2] is not an invariable rule; cataract occurs in advanced cases, as a rule, but is sometimes the first symptom of the disease to be noticed. Unilateral sweating has been observed by Koch,[3] Külz[4] and Nitzelnadel.[5] The mental condition of glycosurics is often affected. The patient becomes depressed or apathetic; an apathy, interrupted by frightful dreams, or complete as in the cases described by Le Grand du Saulle;[6] Durand-Fardel[7] is of opinion that this apathy is due to the general enfeeblement. Cotard,[8] Madigan,[9] de los Santos,[10] Zimmir,[11] Fleury,[12] Schmitz,[13] Marchal[14] (de Calvi), Seegen,[1] Snell[15] and Kiernan[1] have reported cases of glycosuric insanity marked by depression. Bernard[2] and Féré state that coincident with the motor symptoms the mental enfeeblement of paretic dementia makes its appearance.

Trophoneuroses are not wanting in glycosuria; some patients present affections nearly resembling those observed in spinal cord diseases. Clement[3] has observed perforating ulcer of the foot in no way distinguishable from that resulting from spinal affections or from paretic dementia. Leudet[4] and Cantani[5] have observed localized skin atrophies similar to those due to lesions of the anterior cornua. Quermonné[6] and Féré have observed dermic vegetations of like character. Magitot[7] has observed changes in the lower jaw and aveolar border of both jaws, which, he claims, are pathognomonic of the disease. Féré[6] and Dickinson[8] have observed muscular atrophies undistinguishable from those of neurotic origin.

The subject of coma was partially discussed in the preceding paper, but since that has appeared some additional researches have come to hand. Frerichs[9] claims that in one group of cases death occurs from cardiac failure due to cardiac degeneration. The other groups are the result of intoxication; a series of changes take place in the blood the ultimate products of which, aceto-acetic acid and aceton are known, but the initial products are not. Jaksch[10] finds that there are four types of acetonuria: Febrile acetonuria, glycosuric acetonuria, acetonuria from cancer, acetonæmic acetonuria. He has also found that acetonuria results from hydrophobia. The occurrence of acetonuria in this latter disease points to vaso-motor perturbation as the cause rather than the result of acetonæmia. This is further borne out by the observations of Mackenzie[11], who has never been able to detect acoton in the breath, and but rarely in the urine of comatose glycosurics and his autopsy results have been equally negative as regards aceton. My experiments with the injection of aceton into glycosuric dogs have had negative results. The lipæmia theory seems equally untenable, for injection of finely divided fat is without effect and Mackenzie[1] has found that lipæmia is not a constant attendant on glycosuric coma. Hilton Fagge,[2] believing that blood dehydration was a cause of coma, injected saline solutions into the veins with temporarily favorable results; this theory is also held by Féré[3] and T. A. McBride.[4] Ebstein[5] is of opinion with Senator[6] that aceton retention is the cause of coma and this retention is due to changes in the renal epithelium, but this only adds increased difficulty to the aceton theory for, despite the fact that molecular renal epithelial changes might produce this result in cases where renal changes are not demonstrable, still many cases in which marked renal changes exist do not become comatose. Teschenacher[7] suggested that a shock to the sympathetic from changes going on in the intestine was the cause of coma, and Saundby[8] is inclined to the same opinion. Taking into account the facts, that all types of coma can be produced without the presence of aceton, that there are apoplectiform as well as epileptoid types, that coma may occur early in the disease, that physical and mental strain is detectable as the exciting cause in the great majority of cases, and recognizing that hysterical and epileptoid attacks may occur from the same exciting causes, it would seem that Pavy's[1] theory somewhat modified will best explain all cases; Teschenacher's[2] theory is only a modification of this. I regard coma as the response to a sudden strain upon an unstable

[2] Centralb. f. Augenheilk. Band VI.
[3] Gazette Hebd., Nov. 7, 1861.
[4] Ibid.
[5] New York Medical Journal, Vol. XVII.

[1] Op. Cit.
[2] Op. Cit.
[3] Diss. Jena.
[4] Senator Op. Cit.
[5] Ibid.
[6] Gazette des Hopitaux, 1877.
[7] Op. Cit.
[8] Op. Cit.
[9] Op. Cit.
[10] Op. Cit.
[11] Deutsche Klinik, 1867.
[12] Gazette Hebd., 1873.
[13] Op. Cit.
[14] Op Cit.
[15] Op. Cit.

[1] Op. Cit.
[2] Op. Cit.
[3] These de Paris, 1881
[4] Op. Cit.
[5] Il Morgagni, 1881.
[6] Op. Cit.
[7] Journal de Medecine de Bordeaux, Jan. 1, 1882.
[8] Nervous Diseases in Diabetes.
[9] Berlin Clin. Woch., March, 1883
[10] Zeitschr. f Clin. Med., Nov. 1882.
[11] British Medical Journal, April 7, 1883.

[1] Op. Cit.
[2] Guy's Hospital Reports, v. xix.
[3] Op. cit.
[4] Med. Record, Aug. 25, 1883.
[5] Senator Op. cit.
[6] Op. cit.
[7] Mackenzie Op. cit.
[8] British Med. Journal, April 7, 1883.

[1] Op. cit.
[2] Op. cit.

vaso-motor system; the instability of which is due to the constitutional condition which produces glycosuria; the neuro-patho-anatomical changes found by Pavy[1] and Dickinson[3] show that decided vaso-motor perturbations mark the course of the disease, the aforesaid changes being obviously secondary to these.

That the lungs are often affected in glycosuria has long been recognized; phthisis and pneumonia are far from infrequent. Leyden[4] states that glycosuric phthisis has an insidious onset; febrile phenomena are absent; expectoration is slight and hæmoptysis is infrequent. Endarteritis obliterans is a prominent lesion. Tuberculosis may be a primary affection, but from this the type of phthisis just described is distinct. Glycosuric pulmonary gangrene has an odorless sputa and the symptoms are not marked; it is obvious that glycosuric phthisis and pulmonary gangrene resemble the same diseases as found in the insane. Lecorche[1] calls attention to a glycosuric endocarditis which is much more frequent among females than males. It appears late in the disease and more often in the milder forms. It is generally seated at the mitral orifice and but rarely involves the aortic. Its presence is indicated by an apex murmur and an irregular, intermittent pulse. Frerichs[2] claims that renal disease and glycosuria do not co-exist as often as has been supposed; of three hundred and sixteen cases coming under his observation only sixteen gave evidence of renal disease, and of these sixteen but three were pure. Senator[3] states that in the majority of cases renal lesions are found. The kidneys are as a rule abnormally large, firm, and heavy, containing an abundance of blood, but no evidence of textural changes is presented. True nephritis is rare; renal pelves and the ureters are frequently affected. Vesical catarrh is very frequent and gives rise to a symptom of glycosuria-pneumaturia, to which attention has been recently directed by Guiard.[4]

Marchal[1] (de Calvi) was of opinion that "in cases of obstinate furunculosis, of carbuncle, of diffuse phlegmonous inflammation, gangrene, etc., the urine should be examined for sugar;" this opinion has since been confirmed by other observers. Roser[2] states that in all cases of gangrene or ulceration without obvious cause the urine should be examined, since many such cases are due to glycosuria and not to sepsis. Myosuria is very common, and points to an explanation of muscular weakness. In certain cases of the lean variety of glycosuria the pancreas is demonstrably involved, and in others pancreatic affections are very probable. This involvement is coincident with or antecedent to glycosuria, and in all probability is a great factor in the production of emaciation. The same is true also of gastric and intestinal affections.

Senator[3] states that all febrile affections occurring during glycosuria affect it favorably, but this rule is not invariable; the fat form is made worse by high pyrexia and the lean by typhoid fever. The fat type has been favorably affected by dysentery. The peculiarities of the coma and of the other complications can be best explained on the vaso-motor neurosis theory of the disease. Phthisis of the kind indicated is, as already stated, a very frequent complication of the vaso-motor psychoses; renal disease is as infrequent in them, despite very favorable circumstances, as it is in glycosuria. Ross[1] says: "The vaso-motor nerves of the liver take their origin on the floor of the fourth ventricle and pass through the cervical and upper dorsal regions of the spinal cord and the *rami communicantes* opposite the fourth or fifth dorsal vertebra, to join the sympathetic, and ultimately enter the organ as the hepatic plexus. Injury to these fibres at their origin in the fourth ventricle, in any part of the spinal cord, or of the sympathetic itself, is followed by glycosuria." Frumet[2] de Fontarce is of like opinion. On careful examination there is found precedent to most of the reported cases cerebral hyperæmia from overwork or anxiety, and at the same time extra strain on the digestive apparatus. In certain cases predisposed by heredity or injury these two influences act in a vicious circle; the hyperæmia acts on the cerebral vaso-motor center to increase the digestive difficulty and to produce *per se* glycosuria. The digestive difficulties act through the sympathetic on the vaso-motor centre itself in an indirect manner, as explained by Senator, to cause glycosuria. From this inter-action in a vicious circle the vaso-motor centre becomes perverted and glycosuria remains a permanent condition. In a second class of diseases digestive difficulties arising from mental overwork produce cerebral anæmia, which results in changes of the functions of the pancreas and intestines, and finally in the structure of those organs, already weakened by digestive strain. The cerebral anæmia interferes with the function of the cerebral hepatic fibres and at the same time a gastro-intestinal condition reacts on the cerebral condition and the lean form of glycosuria is the result. In some cases tuberculosis is the origin, at once, of the intestinal and cerebral conditions.

This theory explains many seemingly contradictory facts; it explains at once why pyrexia should cause and improve glycosuria; it explains why glycosuria occurs after apoplectiform and epileptiform attacks; it explains why opium on the one hand and chloral on the other should cause glycosuria, and why the first should benefit it; it explains the varied glycosuric neuroses, the peculiar phthisis and other complications.

Therapeusis can now be discussed with some clearness. The treatment by drugs is the first matter requiring analysis. The drugs used can be divided into two great classes; those acting on the digestive organs and those acting on the brain; the latter are again divisible into those producing cerebral hyperæmia and those producing cerebral anæmia. Among those acting on the digestive organs may be mentioned the alkaline waters. Cornillon,[1] for example,

[3] Op. cit.
[1] Zeitschr. f. Clin. Med. Band IV.
[4] Op. cit.
[2] Deutsch Med. Woch. No. 24, 1883.
[3] Op. cit.
[4] Annal des Mal. Gen. Urin., June, 1883.
[1] Op. cit.
[2] Deutsch Med. Woch., 1880.
[3] Op. cit.
[1] Diseases of the Nervous System.
[1] Path. Clin. du grand Sympathetique.
[2] Op cit.

[1] Progrés Med., Jan. 1880.

claims that the use of these is attended by very decided amelioration, and that the use of the alkalies seem to reëstablish the functions of the digestive organs. This testimony only corroborates that of Senator,[2] Seegen,[3] Kretschy,[4] Külz,[5] and others. It will be obvious that the alkaline waters act only on the digestive organs, and remove or modify one element of the vicious circle which produces glycosuria. On the theory already given, their use would be indicated in both varieties, but most in the anæmic, and in this they have given very favorable results. Potash permanganate recently used by Masoin,[1] had an influence on the digestive organs, and to this, if anything, is due what influence it has on glycosuria. To the same origin may be ascribed the favorable effects attendant upon the use of lactic acid, advised by Cantani,[2] and of soda citrate, advised by O. C. Knight.[3] On the same principle, we may explain the results obtained from the administration of calcium, by Dare,[4] Flint,[5] Halstead,[6] and others, more especially as Fleury[7] has shown that the evolution of sugar is attended by the evolution of free sulphur, which would be checked by the presence of a sulphur compound tending to produce retrograde metamorphosis. Ammonia is claimed by Adamkiewitz[8] to act in like manner, but it is obvious that its action on the brain might interfere with its action on the digestive organs, and in the fat cases, it has been shown by Guttman[9] to exert a deleterious influence. Uranium nitrate is another agency acting chiefly on the digestive organs, and sometimes on the brain. To this combined action can be referred the good results obtained by de Cailhol,[1] Dale,[2] and H. A. Wilson.[3] Opium and its alkaloids are the drugs whose action in producing cerebral hyperæmia is most marked, and whose effects have been found most decided in the lean form by Ætius,[4] Pavy,[5] Shingleton Smith,[6] Watson,[7] Senator,[8] Tyson,[9] Rollo,[10] Kratschmer,[11] Pelham,[12] Warren, Aitken,[13] Image,[14] and others. Codeia and its salts are for many reasons to be preferred, and, according to Pavy,[5] are capable of effecting a cure without other treatment; one case reported by him seems to have been of hysterical origin, and, therefore, of doubtful value. Brunton[15] confirms Pavy's results. Iodoform, an agent capable of producing cerebral hyperæmia, has been found useful in glycosuria by Moleschott[16] and Bozzolo.[17] Peroxide of hydrogen, which has a like property, was found of value by Day.[18] Salicylic acid, which also produces cerebral hyperæmia, has given good results in the hands of Ebstein.[19] Pilocarpine acts on the the brain in like manner, and has been found by Charteris[1] to yield good results. Carbolic acid and creosote, which also produce cerebral hyperæmia, have been found useful by Millard,[2] Blau,[2] Thoresen,[2] Ebstein,[2] J. Müller,[2] Bernd,[2] Hufeland,[2] Kraussold,[2] and Boese.[2] Quinine, which has been shown by Hammond and Roosa to produce decided cerebral hyperæmia, has been found very effective in glycosuria by Blumenthal,[2] Mayer,[2] Deihl,[2] and Carlatti,[3] who has for the same reason found eucalyptol of value.

Of the agents producing cerebral anæmia, ergot has been found of value by Tyson,[5] Hunt[4] and others. Arsenic, from the fact that it exerts a direct influence on the vaso-motor centers of the medulla; that it diminishes the amount of blood in the brain, has been attended with by far the best results. It will prevent the temporary glycosuria produced by puncture or irritation of the fourth ventricle; a fact which was first noticed by Quinquad,[6] whose results were confirmed by Longueville[7] and which I have personally verified. The drug has been found of great value in glycosuria by Flint,[1] Pap,[2] Longueville,[3] Clemens,[4] Leube,[5] Berndt,[6] Senator,[7] W. L. Lehmann,[8] Devergie,[9] Tyson,[10] Gilliford,[11] Emmerling,[12] Bokai[13] and others. The bromides were early proposed by Begbie[18] and have been found of value by Flint,[14] Vantraa,[15] Dujardin-Beaumetz[16] and others. The potassium salt is contra-indicated because of its being a muscle poison, and therefore tending to set free inosite and thus weaken the muscles. Bromine has a most decided action on the liver; a fact to which attention has been called by Jewell.[17] The combinations lately made of bromine and arsenic seem likely to be of especial value. Taking all the facts cited into consideration it is obvious that there is no specific for glycosuria.

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2 Op. cit.
3 Op. cit.
4 Senator. Op. Cit.
5 Op. Cit.

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1 Bull. de l' Acad. Ro de Med Belg. XVI, 1882.
2 Il Morgagni, 1881.
7 Op. Cit.
3 Detroit Lancet, Sept. 1883.
4 Cinn. Lanc. and Clin., Dec. 11, 1880.
5 Amer. Med. Weekly, July 5, 1881.
6 Jour. of Cut. and Ven. Dis., 1883
7 Op. cit
8 Revue de Therap., 1882.
9 Berlin Klin. Woch, No. 38, 1880.

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1 St. Louis Clin. Record July, 1878.
2 Boston Med. and Surg. Journal, Vol. C.
3 Medical Bulletin, March, 1880.
4 Pavy, Op. cit.
5 Op. cit.
6 Op. cit.
7 Op. cit.
8 Op. cit.
9 Op. cit.
10 Tyson, Op. cit.
11 Ibid.
12 Ibid.
13 Op. cit.
14 Tyson, Op. cit.
15 British Med. Jour., 1874.
16 Wien. Med. Woch, No. 17, 1882.
17 Gazzeta degli Hospitali, Feb'y 4, 1883.
18 Australian Med. Jour., July, 1882.
19 St. Petersburg Med. Woch, an. 14, 1883.

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1 Lancet, Sept. 5, 1880.
2 Senator, Op. cit.
3 Schmidt's Jahrb., B. CLVII, 1873.
4 Practitioner, Sept. 1880.
5 Op. cit.
6 Bull. gén. de Thérapeutique, Sept. 30, 1882.
7 Journal de Thérapeutique, July 15, 1883.

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1 New York Med. Jour., June 30, 1883.
2 Wien. Med. Presse, 1875.
3 Op. cit.
4 Berlin. Klin. Woch, 1882.
5 Tyson, Op. cit.
6 Senator, Op. cit.
7 Op. cit.
8 Academ. Proefschrift, 1873.
9 Gazette Med. No. 22, 1870.
10 Op. cit
11 Pittshurgh Med. Jour., July, 1883.
12 Med. and Surg. Reporter, June 10, 1883.
13 Orvosi Hetilap. No. 1 to 3, 1883.
14 Op. cit.
15 Senator, Op. cit.
16 Progrés Méd., July 29, 1883.
17 Chicago Med Rev., Vol. V.
18 Lancet, 1865

Hygienic treatment: The glycosuric should indulge in moderate exercise, breathe pure air and bathe frequently in water in which a little soda has has been thrown. All business worry and intellectual strain should be avoided. If the patient be a physician inclined to hypochondria all glycosuric literature should be prohibited.

The complications which require special treatment are the vesical catarrh, the balano-posthitis and the coma; in the first Guiard has found solutions of silver nitrate (1 to 500) and of boracic acid (1 to 20) of considerable use. Cleanliness and the use of weak antiseptic solutions will soon cure the balano-posthitis; Simon recommends that the inside of the prepuce be covered with the following powder:

℞—Zinc oxid.....ʒi
Amyli.....ʒi
Acid. Salicyl. Pulv.....ȝi—M

It is obvious from what has been said that the two great indications in coma are, to sustain the heart's action, and to produce derivation from the brain. This last is doubly indicated in cases where the exciting cause of the coma is the occurrence of fermentative changes in the intestine. Schmitz and Shingleton Smith have had results of value from following these indications.

The dietetic treatment is all important, and the table given by Tyson[10] is of sufficient value to merit recommendation.

Conclusions: First.—Glycosuria, properly so-called, is met with in two forms; one due to cerebral anæmia—the "lean form;" the other due to cerebral hyperæmia—the "fat form." In both digestive derangements act in a vicious circle on the cerebral condition. The indications, therefore, are to modify the cerebral circulation and to relieve the digestive derangements. The last can be accomplished by dietetic treatment, by proper hygiene, and by the use of remedies like the alkaline waters. The first is accomplished indirectly in the manner just described, and directly by the use of opium, codeine, morphine, quinine, salicylic acid, iodoform, carbolic acid, etc., in cerebral anæmia; in cerebral hyperæmia by the use of arsenic, the bromides, ergot, etc.

Second.—In cerebral anæmia it may be desirable to alternate the agents useful in that condition, and a combination of quinine and codeine or quinine and morphine, or quinine and glonoin, can be used with advantage.

Third.—In judging of the effects of treatment the fact that senility, pregnancy, hysteria, epilepsy and other nervous diseases, cause prolonged intermittent types of glycosuria should not be forgotten.

Fourth.—In certain cases of glycosuria there is a normal equilibrium nearly established, for which reason dietetic or other treatment may *per se* prove curative.

Fifth.—A combination of the alkaline waters and the cerebral agents mentioned is likely to be of value in all cases; the cerebral agents being varied to suit the case.

Sixth.—That in all probability most if not all cases of coma in their early stage do not have a toxic element about them and are therefore remediable by intestinal derivation. In all cases, cardiac stimulation is indicated, and at no stage is either intestinal derivation or cardiac stimulation contra-indicated.

Seventh.—That small doses of pilocarpine may be found of value in treating dryness of the mouth and that mild antiseptic washes are useful in relieving uncomfortable sensations therein.

Eighth.—That it is probable that temporary glycosuria, resulting from pregnancy, etc., becomes permanent when the patient is exposed to too much mental or physical strain.

TREATMENT OF THE OMENTUM IN OPERATIONS FOR OBSTRUCTED OR STRANGULATED INGUINAL HERNIA.

BY J. R. WEIST, M.D., RICHMOND, IND.

[Read before Union District Medical Society, Oxford, Ohio, Oct. 25, 1883]

When operating for obstructed or strangulated inguinal hernia, the surgeon is frequently embarrassed by questions that arise in relation to the best method of dealing with the omentum so often found in the hernial sac, as he generally finds this structure greatly changed from its normal condition, by either inflammation or hypertrophy, the latter condition being commonly met with in old cases of irreducible hernia.

The omentum is well known to be much less capable of resisting the effects of inflammation than the intestine; this is especially true when it is loaded with fat, as it nearly always is in corpulent subjects. In such cases a degree of compression that only very slightly endangers the bowel is sufficient to deprive it of vitality. At the same time the visible effects of inflammation of the omentum are less marked than in the bowel. The bowel when dangerously inflamed is greatly discolored, and the arborescent arrangement of its vessels may be clearly seen. The omentum on the other hand may be undergoing inflammatory changes sufficient to destroy its vitality, without showing any marked change of color, its vessels being only marked by a few faintly seen perpendicular lines. It is true that when subjected to violent or protracted inflammation, the omentum shows a decided loss of consistence, but any manipulation sufficient to discover this is dangerous, as slight pressure by the fingers will often convert it into a pulpy mass. Because of its lower power of vital resistance, an inflamed omentum is much more likely to die after being returned within the abdomen than a correspondingly inflamed bowel; and its hould be always remembered that when returned in the condition described the mass is likely to act as a foreign body and induce a fatal peritonitis. It is, indeed, not necessary that destructive changes advance to this degree to light up a dangerous inflammation within the abdomen. When there is much hypertrophy, a condition often seen in old hernias, a slight inflammation may readily pass into a destructive one, because of its low vitality, and this danger is increased, for the reason that the size of the misplaced tissue makes necessary for its

reduction a good deal of rough manipulation. Aside from the danger of inflammation there is the objection to returning a large mass of omentum that the opening in the abdominal wall through which it has protruded must be so much enlarged as to greatly favor the protrusion of some portion of the contents of the abdomen at a future time.

When adhesions exist between the omentum and the hernial sac, the objections already mentioned to a return of the former apply, and there is the additional one, that when the adhesions are of long standing, their breaking up causes the rupture of numerous small vessels which may not bleed while under the eye of the operator, yet do so after the replacement within the abdomen has been effected. This blood in the cavity outside the vessels, even when small in quantity, becomes an element of extreme danger, as is shown by actual experience in herniotomy and oftener in ovariotomy.

These dangers attending reduction of the omentum are generally recognized by the profession, and surgeons are usually agreed that only when it is small in quantity, healthy in character, and apparently recently protruded, should it be returned, but as to the other methods of dealing with it there is not complete unanimity. Some surgeons advise that it be left in the sac, and others that it be removed. My own experience has led me to the conclusion that it is safer not to return it in any case. In two of my cases of inguinal hernia in which strangulation had recently occurred, and apparently in all respects favorable for an operation, the sac was found to contain both omentum and intestine. The former being small in amount and only slightly congested, was returned after the reduction of the latter. At the time of the operation there was no evidence of abdominal inflammation, yet a fatal peritonitis was developed; one patient died in thirty-six hours after the operation and the other in fifty hours. In both cases a post-mortem examination revealed the usual signs of a general peritonitis, yet the intestine had so completely recovered, the portion that had been strangulated could not be recognized. A portion of the omentum was in one case gangrenous, in the other, highly congested and softened. It was easy to decide that the portion of omentum returned was the starting point of the peritoneal inflammation in both instances. A study of these cases has satisfied me that in others where death followed an operation the unsuccessful result was owing to the same cause. In another fatal case—not my own—in which the omentum had been returned after the separation of adhesions existing between it and the sac, I found on opening the abdomen after death that considerable hæmorrhage had taken place from the portion of omentum that had been in the sac. The blood was in a state of decomposition, and the other conditions present made it apparent that it originated the series of changes that had ended in death.

The fact that occasional recovery follows the return of a large mass of omentum that has been subjected to rough treatment in separating adhesions and forcing it into the abdomen through a small opening does not invalidate the rule I am seeking to establish. In every case in which I have returned a large mass of omentum peritonitis has been developed. The following cases are examples:

I. H.; American; R. R. clerk; 24 years old; applied to me for an operation on an irreducible inguinal hernia. I shall give only a mere outline of the case. Four years ago he was struck by a falling box on the right inguinal region. Pain and swelling followed, both at the seat of injury and of the scrotum; the latter never disappeared, and frequently all the symptoms of strangulated hernia appeared, to subside again after one or two days. During the last three or four months the attacks have been so frequent and severe as to prevent him from doing any work. Prominent surgeons in Columbus, Indianapolis and elsewhere have been consulted. While the opinions given in relation to the case varied somewhat, there was a general agreement that an operation would be dangerous, and the surgeons consulted declined to undertake it. The patient had suffered so much, he was willing to incur any risk, if there was a hope of his ultimately obtaining relief. After making a careful study of the case, and corresponding with one of the most prominent surgeons previously consulted, who opposed the operation, I decided to comply with the wishes of the patient. When the operation was made, the injured canal and the scrotum were found filled with a mass of omentum, about six inches in length, and three inches in thickness, at its largest part. Firm adhesions existed between the sac and its contents, while the atrophied testicle and the cord at its lower part were firmly adherent to the omentum. The various adhesions were separated, the testicle and part of the cord removed, and the omentum returned into the abdominal cavity. The last procedure was difficut of execution. A part of the sac was removed, and a fold of the remainder retained in the internal ring, by sutures passing through it and the external borders of the ring, the ends of the wires being passed through the overlying skin and twisted over a small roll of adhesive plaster. Peritonitis followed, seriously threatening the life of the patient. Although perfect recovery, with a radical cure of the hernia, finally resulted, I am satisfied that had I removed the omentum, much less danger would have been incurred.

II. F.; American; farmer; 48 years of age; had a small left inguinal hernia for six years. During this time he had generally worn a truss. Ten days before consulting me his truss was broken. The hernia descended and could not be returned. Soon the characteristic symptoms of strangulation appeared. A physician failing to accomplish reduction, I was summoned. I found a swelling about three inches in length and one and a half inches in width, extending from opposite the external abdominal ring into the upper part of the scrotum. An anæsthetic was given, and failing to accomplish reduction, I used the knife. The hernia was found to be the direct variety, the sac containing omentum only. The stricture was not tight; the omentum free of adhesions, and only slightly congested. The mass was easily returned into the abdomen, yet within twenty-four hours a dangerous peritonitis was devel-

oped, from which the patient only slowly recovered.

The following brief report of two cases unlike in character, fairly present the results of my experience since adopting another mode of practice, and at the same time show what I believe to be the best method of procedure in similar cases.

III. K.; Irishman; 71 years old; after having an irreducible right inguinal hernia for many years, suddenly presented the symytoms of strangulated hernia. He being under the care of a homœopathic doctor, practically nothing was done to afford relief during five days. At this late period I was sent for. I found the patient in a state of collapse, but as the patient and his friends urgently demanded an operation, I used the knife. The hernial tumor was unusually large, and contained a loop of small intestine three inches in length, and a mass of hypertrophied omentum at least four inches in diameter. Adhesions were found between the intestine and the omentum, and between the latter and the sac. These were taken up, the stricture divided, and the intestine returned into the abdomen. The omentum was transfixed by a wire suture, just outside of the internal ring. The wire also passed through the borders of the ring. The ends were twisted together and cut off short. A strong double silk ligature was passed through the omentum just below the suture, and each half strongly tied. The omental mass below and most of the sac were then cut off, and the wound partly closed. After the operation the patient soon rallied, but little suppuration followed, the ligatures separated in fifteen days, not a single unfavorable symptom appeared, and rapid recovery followed. A radical cure of the hernia was effected, as during the three years since the operation it has not reappeared. The wire suture remains in the tissues.

IV. S.; German; 54 years old; had double inguinal hernia for 47 years, and wore a double truss during the last sixteen years. Owing to some defect in the truss the right hernia protruded in June last and could not be reduced. Some pain in the tumor followed. The physician who was summoned thought he twice reduced a part of the tumor. In this he was probably mistaken. I first saw the patient ten days after the accident. The pain and swelling had not abated, and I found the tumor extending from the internal abdominal ring to the lower part of the scrotum, being about eight inches in length and three inches in diameter at its thickest part. The tumor being hot, tender and painful with an absence of obstruction of the bowels and of threatening constitutional symptoms, I counseled delay and the use of hot applications to the swelling. Eleven days later I again saw the patient. The symptoms had gradually grown worse. The tumor was larger and more tender, and the vital forces generally failing. Assisted by Drs. Sutzi, Duiggins and Bond I operated without longer delay. An incision about eight inches long was made into the tumor. A considerable quantity of pus was found, and a large mass of omentum adherent to the sac and in a state of inflammation. The testicle was found in the lower part of tumor, the tunica vaginalis containing considerable fluid. This was freely divided to secure a radical cure of the hydrocele. The omentum was separated from the sac after much trouble, fixed in the internal ring by a wire suture, ligated and divided as in the preceding case. A large part of the sac was also cut away. The upper part of the wound was closed by sutures, and carbolized water dressing applied. But little pain followed the operation, anodynes being at no time required. The general condition of the patient rapidly improved. Free suppuration occurred, but no trouble within the abdomen. The wound was daily syringed with water containing carbolic acid. The patient was able to sit up in two weeks. The ligatures separated on the sixteenth day, and the wound was entirely healed at the end of four weeks.

Other successful cases in which omentum was removed might be reported, but these are sufficient to contrast the results following the removal of the omentum with those following its return into the abdomen. I have had this experience. In no case in which I have cut away omentum with or without a portion of the sac has either peritonitis or a fatal result taken place; of course this experience is largely the result of accident, as various conditions independent of our method of dealing with the omentum, may cause either peritonitis or death, but an examination of the subject and my experience has convinced me of the correctness of the rule previously given.

Some surgeons advise leaving the omentum in the sac, but this method has disadvantages. The fat becomes inflamed, suppurates and sometimes sloughs, all of which delay the healing of the wound. If it contracts a tumor is left at the abdominal aperture after the wound has healed that may interfere with the application of a truss in the event of a reappearance of the hernia. The adhesions to the sac said to sometimes render necessary leaving the omentum, can be with a little care safely separated, whether recent or chronic.

It has been recommended that the omentum be cut off and after the separate ligation of each vessel, the stump returned into the peritoneal cavity; but this method is dangerous, as cases have occurred after every precaution was taken to secure the blood-vessels, in which a fatal hæmorrhage has taken place. An additional argument against this plan is, it takes away the best security against a reappearance of the hernia. When the omental stump is retained in the upper part of the inguinal canal by sutures of silver wire passing through it and the borders of the ring as I have described, a radical cure is almost sure to follow, for as a general rule I have found the sutures to remain permanent without causing irritation.

Some surgeons have assumed that various dangers attend tying a ligature around the omentum. It has been, however, demonstrated by experiment in St. George's Hospital and elsewhere, these are purely imaginary. We are informed by Mr. Holmes that in the hospital mentioned, "In no single instance has any untoward symptom been excited by the ligature of the omentum,"

Some surgeons, like Mr. Erickson, give instructions for securing the free ends of the ligature to prevent the omental stump slipping into the abdomen,

an accident almost certainly fatal. By my method such an unfortunate occurrence is rendered impossible. It offers an additional important advantage, the permanent suture generally secures a union between the stump and the borders of the ring by which the latter is effectually plugged, and a radical cure of the hernia effected.

RICHMOND, IND.

REPORT OF THE COMMITTEE ON MEDICINE OF THE KANSAS MEDICAL SOCIETY FOR 1882-83, READ AT THE MEETING IN TOPEKA, MAY 15, 1883.

BY W. L. SCHENCK, M. D.

[Published in advance of the Transactions of the Society.]

Your committee are not aware of any special progress in medicine during the year that has just closed, though the labors of many eminent men of the profession have doubtless resulted in healthful growth.

Philosophers entertain different views of growth. One school believes in a continuous development resulting from natural and fixed laws; another that all great, time-enduring monuments are the result of special inspiration.

Spencer says God in Nature, before all things, in all things, bringing forth by immutable law order, progress, growth.

Carlyle beheld Him above Nature, inspiring anew the human soul, and thus promoting progress.

To the one the event made the man; to the other, man the event. Both are in a measure correct.

The perception of truth, the conception of a great event, by an earnest soul gives the seeming supernatural power that enables one man to move millions—to roll the ages. Great truths lie hidden all around us, while the laws that move and develop the worlds, from the mightiest sun to the minutest molecule, from the spiritual life of man created in the image of God to the microzone, are fixed and immutable. God inspires whoever devotes the energies of his soul to the comprehension and demonstration of these laws, and inspires anew every soul that with living faith enters into intimate communion with Him, whether as He reveals himself in the material world or in the spiritual life. Hippocrates, Galileo, Newton, Bacon, Franklin, Morse, Milton, Shakespeare drank new, fresh draughts at the fount of inspiration.

Moses, with a lofty conception of spiritual truth, wrote the commandments, which are yea and amen.

Mohommed, profoundly impressed that "Allah is God and Mahomet His prophet," obtained over the inconstant bandits of the desert the power "of wielding, molding, gathering, widening, banding the hearts of thousands till they beat as one." Men prove themselves by their earnest devotion to truth as they perceive it. The ultimate influence of inspiration varies with the field occupied. The influence of the inventor and discoverer, though wide as the world, effects no world-wide changes in humanity. The physician is more inventor and discoverer than philosopher. Yet his whole life is a philanthropy, and as he unfolds more and more the laws of life and death, the relations of the spiritual to the physical, of mind to matter, he becomes more and more a philosopher, and here is a wide aud fruitful opening for his labors. As we have not yet learned what either mind or matter are, we know not how they are united or the extent of their influence upon each other. Spiritual medicine is yet in its infancy. Scientific men have recently been giving more careful thought to this department of science, and it has suffered a great loss during the year in the death of our fellow countryman, Dr. George M. Beard, of New York.

We may deny the resurrection of the body because we believe it intrinsically incredible, but does not its incredibility rest simply upon the fact that it is exceptional? Unless we assume that nothing can occur that has not occurred, can it on that account be maintained as absolutely incredible? Must it not be shown impossible in the nature of things? This we cannot do, for we know too little of the nature of the things concerned—life, matter, and the link that binds them in one. The many well-attested instances of the going out of the spirit from the body, as under the influence of trance and clairvoyance, are about as intrinsically incredible as the resurrection of the Master, because they are beyond all we yet know of the laws that govern the connection of the mind with matter. In a sermon preached in Philadelphia, Easter Sunday, 1883, by Rev. Dr. Furness, he says: "The appearance of Christ after death being admitted, the common assumption that death is the utter extinction of life, is not merely negatived, but we see a little way into the mystery. We discover that the life that animated the body can, under certain conditions, resume its power over the physical frame. What those conditions are, the whole history of Jesus, his life, death, and emphatically his resurrection, reveal. All show there was in him an unprecedented quantity of being, a fullness of life—the life of faith in God, the life of love, which is the very essence of the Almighty One. So profound was his interest in the truth for which he had voluntarily surrendered his mortal existence, so strong was his affection for his poor bewildered disciples, that he must needs reappear to them to re-animate their faith and reassure them of his undying interest in them. And so, as one awakes early in the morning when some great thing is to be done, Jesus awoke from the deeper slumber of death. The resurrection of Jesus teaches us that life is a thing of degrees. As is our faith and love, so is the depth, the quantity of our being."[1]

Intrinsic incredibility would deny the miracles wrought by Christ, and yet they were in harmony with all we know of the influence of mind upon matter, of the spirit upon the body.

There may be those within, as well as without the profession, who will raise their hands when we seek to investigate the power by which the Christ wrought his "miracles," but we belong to that branch of the medical profession that circumscribes itself with no iron-bound creed, that accepts the whole pharmaco-

[1] The thanks of the committee are due to the sermon of Dr. Furness for several suggestions in this report

pæia of nature and art, whether spiritual or physical, whether moral or mental, animal, vegetable or mineral, as the beneficence of omniscience, and seeks to discover the possibilities of all. What progress can we expect from those who stand aghast at the investigation of any truth, or who denounce as always injurious any mode of depletion or repletion unless it acts specifically or in accord with some preconceived idea, and who thus withdraw from affiliation with those who adopt a broader faith and seek a wider field of knowledge? We are ready to investigate anything and to prescribe anything in any dose. All we ask is to know that it benefits, and to know, if possible, why and how. The true scientist does not attempt to circumscribe, but to comprehend, the wisdom and power of Omniscience and Omnipotence. The wise physician will not proclaim in advance any inexorable law of *alia aliis similia similibus* of specifics or dynamizations and thus deny himself association with men of larger views and opportunity of garnering from broader fields. Science never advances on such a basis. The father of medicine as a science, laid down a broader platform. Among his aphorisms we find "some diseases are cured by contraries, some by similars." And the famous saying of Corus in his controversy with Hahnemann applies equally well to all narrow sects in medicine: "Whatever is new in homœopathy is not true, and whatever is true is not new." No narrow and exclusive dogma ever developed such men as Hippocrates, Harvey, the Hunters, Jenner, Loanec, Bechat, Boerhaave, Cullen, Magruder, and a host of others who have made valuable additions to the science of medicine.

Though we do not yet comprehend either life or death, or the link that binds in one soul and body, the broad and earnest search after truth enables us to know much that was once inscrutable, and bids us push forward with the full assurance that we shall yet penetrate the secret of life, the power of the spirit over the body and their bond of union. Need we longer resort to the theory of miracles, as commonly understood,—the interruption of laws already existing or the creation of special laws for the occasion,—to explain the well-attested cures of the Great Physician? or do we detract from his glory when we concede a wisdom that comprehended and co-operated with the great central laws of nature—the power of spirit over matter? He claimed for them no supernatural power, but rather that they were in harmony with the laws of spiritual and physical life. When his disciples failed to effect similar cures his expression was, "Oh, ye of little faith!" His thought seems to have been "all things are possible to him that believes." In faith he saw a sovereign power working in and through man in unison with eternal law. Through its power the insane were cured, the dumb spake, and the lame walked. The spirit of man is but a scintillation from the Infinite. Who shall limit its power to energize brain and nerve and through them vitalize the whole body?

The Master seemed himself surprised at his wonderful cures, but, profiting by experience, his faith in faith daily increased. Avoiding all undue publicity; steadfastly adhering to his one great thought, he used his power over the body only to win men to the theology he proclaimed: "Except ye see signs and wonders ye will not believe." Many are wont to consider his faith-cures exceptional. But like cures have occasionally been wrought all down the ages. The history of the Papal Church is full of them. Sixty years ago Ramohun Roy translated the "Precepts of Jesus." He omitted his miracles, because, as he said, "they are much less wonderful than those handed down to the people of Asia." Christ fully recognized in faith a curative force open to all, and hence said to his disciples; "The works that I do ye shall do also, and greater works than these." Though thus clearly taught eighteen hundred years ago, it is as yet but feebly apprehended, though we have all observed or known cases where a mental impression killed or made alive. Dr. Chambers, in his work on "The Indigestions," gives the following case: "Rev. N. R., a bachelor of middle age, * * * In November he came to me again, saying that when he dined in company he could digest anything, and never suffered, however rash he had been at table; but when he took his meals alone for several days together, his old symptoms of the previous year returned, and no carefulness or abstemiousness prevented them."

Here an unappreciated action of the mind, which through sociability unlocked, or through mental abstraction locked up the energies of the brain, prevented or produced painful digestion.

Dr. Nathan Smith, the founder of Dartmouth Medical College, gave the following case from his practice: He was called up the Connecticut to see a patient who had long been pronounced a hopeless paralytic. A careful examination failed to reveal any lesion. He directed the patient—a maiden lady—to be placed at a given time in a certain relation to the bed and the door, so that upon opening the door she should be fully exposed, and stripped for a shower bath. At the moment the doctor opened the door, when the patient sprang into bed and covered her nakedness.

Here we have an instance of the power of the will over the body, paralyzing its muscles or stimulating them to activity. All have doubtless heard of the Chicago faith doctor who a few years ago hired a suite of rooms, flooded the papers with his advertisements, paid a reporter to make daily reports of the number who hobbled up his front stairs and went rejoicing down the back way, and the number of canes and crutches deposited in the back-yard. N. B., who had been confined to his bed under the care of a prominent Chicago physicia for several weeks read the reports and told his physician he decided to try him. He was sent for and after such delay as would increase the anxiety of the patient visited him. Looking quietly at the patient he bade him sit up, get up, draw on his pants, walk, run, pull on his boots, go down stairs and back. He was promptly obeyed by the astonished patient, even to the command "pay me fifty dollars." When the doctor had gone he sat down to think, to wonder, to doubt and soon to find himself as helpless as ever.

Here faith cured, but a doubt produced relapse.

Why repeat cases? The world is full of people staggering to the grave with every variety of disease engengered by anxious care, and full of cures wrought through the mind. Every physician knows the difference in the curative power of his prescriptions when his patient is animated by faith and when faith halts, perchance through the influence of some meddlesome neighbor, perchance the runner of some nefarious doctor. Every physician has found patients who refused to confirm his prognosis, living when they should die, or dying when they should live. In the one class the will, through faith, energizing the brain until a nervous force was generated that imparted power to remove the causes of disease and repair wasted tissue, in the other through lack of faith there was no removal of disease poison, no renewal of wasted tissues, no life. How other than through the force of faith can we explain cures wrought under the dynamizations of Hahnnemann, or by the egotistic quack whose patient often recovers despite his treatment? How also explain the cures by prayer divines record? It is not because the Infinite has stopped to rectify mistakes, but "Faith springs exultant on triumphant wing," energizing brain and heart, absorbent and excultant until gaunt disease gives place to rosy health. And why should not faith cure? We cannot conceive of any physiological action not under the direction of the nervous system. It supplies the energy that causes the salivary, gastric and intestinal glands to secrete digestive fluids; the force that enables the muscles to masticate and move the food, that endues the absorbents with power to take up and carry the chyle into the circulation; that energizes the heart and circulatory vessels to distribute it to the body; that endues the glands with elective power and enables them to remove morbid material. That everywhere directs and controls both constructive and destructive metamorphosis.

We expect our prescriptions to produce favorable results by destroying and removing *materies morbi* and by correcting defective force and nutrition and to produce these results largely through the medium of the nervous system. Life is the energizing power, given by the spirit, through the nervous system. Remove the spirit and there is death. Prevent the transmission of nervous influence to any organ or muscle and there is paralysis, atrophy, death. Obstruct its transmission and there are various functional and pathological changes. The spirit, enthroned in the nervous system, can by its power over this system—through faith, often begotten of faith, faith in a strong life, faith in the physician, faith in the might and goodness of God—energize every part and action of the body until functional diseases are relieved, morbid material removed and organic changes restored. While this wonderful force may not do all things we should effect through it much more than we yet know or think.

The most wonderful advance in medicine made during the year is the discovery that the germ theory of disease is settled. We quote from a lecture by Robert F. Weir, M.D., reported for the *Medical Gazette* of March 31, 1883.

"In 1877-78, when my attention was first directed to this subject, the battle was being fiercely fought between the supporters of the germ theory of putrefaction and the defenders of the older doctrines, but the question has now been settled in favor of the new theory, and you know that since then many other diseases have been found to have their cause in the presence of certain germs. * * * So that now it is a generally accepted fact that putrefaction is due to the presence of bacteria life in the tissues, and also that if you destroy the bacteria life you will put a stop to the putrefactive change. * * * The three best antiseptics are: first, carbolic acid; second, iodoform; third, corrosive sublimate. In using carbolic acid it is found that one part in twenty of water is the safest to arrest bacteria life."

The theory is settled by its being generally accepted that septic disease is due to bacteria life, and if you destroy the bacteria life you arrest the disease; a 5 per cent. solution of carbolic acid being the "safest to arrest bacteria life." Is a theory in science settled by general acceptance? Because apparently true, the movement of the sun around the earth was once generally accepted. Hang out a piece of meat on a warm day and it is soon filled with the larvæ of the green fly. Dip it in a 5 per cent. solution of carbolic acid and you destroy the larvæ and arrest septic change. Does it follow as a logical, scientific deduction that the septic change was due to the larvæ, or its arrest to their destruction? Exposed wounds fill with bacteria life and have been known to fill with the above named larvæ; by applying carbolic acid you destroy the life that feeds upon putrescence and at the same time arrest zymosis. Do you thereby prove the life caused the putrescence or its death caused its arrest? Certainly not, if it is to arrest disease by internal administration, and that "solutions of one part of carbolic acid in twenty of water is the safest." The average adult man weighs 160 pounds, of which one-eighth, or twenty pounds, is blood. The quanty of carbolic acid "safest to arrest bacteria life" in him would be five ounces, and that would probably prove not an over safe dose.

This theory of the germ production of disease, and the tests as given by Dr. Wier is of no practical advantage. Cure by germicides is impossible, whilst a very small quantity of the proper antiseptic will often arrest septic changes and restore health regardless of its effect upon the associated microzones. Is it not hence more rational to seek in diseased bioplasm, whose particles are many hundred times lighter than starch corpuscles, or the scales of an insect's wing, whose cells contain the inherent power of reproduction pertaining to the normal cell, the cause of septic disease and the arrest of septic changes; or to seek in the wonderful law of chemical affinities changes in organized matter induced by contact with matter undergoing similar changes?

The fact that the varied forms of germ life may and do exist in the body without producing any of the diseases attributed to them, added to the fact that the per cent. of an antiseptic required and used to arrest septic disease will not destroy these germs, ought to settle this vexed question on a very different base from the one on which Dr. Wier claims it is settled.

Special forms of micrococci may increase in each specific decomposition, finding there their chosen food, and hence may prove valuable aids in both diagnosis and prognosis, and we may find the aseptic agent also a germicide, but we must distinguish in diagnosis and treatment between the *post hoc* and *propter hoc*.

Dr. Geo. M. Sternberg, Surg. U. S. A. (*American Journal Med. Science*, April, 1883), has, by elaborate and definite experiments, shown the exact strength of the various antiseptics necessary to destroy bacteria life. "Mercuric Bichloride: The value of this potent agent as a parasiticide for external use is well established. * * * The proportion in which it prevents the development of septic micrococci is 0.0025, or one part in 40,000. * * * The quantity required to prevent their development in a man weighing 160 pounds would be 3½ grains."

A full dose ofthe agent is from ¼ to $^1/_{12}$ of a grain. "In iodoform we have an agent which permits the introduction of iodine into the system in larger doses than is tolerated when the agent is given uncombined in the form of tincture or in solution with potassium iodide. And we have evidence that this substance is not eliminated so readily as the potassium salt, and that it is decomposed within the body; still it does not seem practicable to administer it in sufficient quantities to take advantage of the germicide power of iodine for the destruction of pathogenic bacteria in the blood and tissues.

"Bacteric organisms failed to multiply after being exposed to a one per cent. solution of carbolic acid. * * * The experimental data recorded do not favor the idea that in this agent we have a cure for all germ diseases. The quantity which should be present in the blood of our standard adult, to accomplish the desired purpose would be considerably above an ounce of pure acid."

Dr. Sternberg, despite his proof that the quantity of an antiseptic possible to be taken by a patient without destroying life, is insufficient to even prevent germ accumulation adopts the germ theory and germicide treatment of disease, and Dr. Wier, who believes carbolic acid the "safest" agent for the destruction of the bacteria, and deems a five per cent. solution necessary for that purpose, declares the germ theory *settled*.

There is so much averse to its settlement that it seems to us many distinguished investigators have placed themselves rather in the position of advocates than scientists. We would call the attention of the society to the many cases of poisoning reported in the journals by iodoform and other germicides, and recommend the members to avoid putting the theory to a practical test with their patients. Physicians may adopt it while it is the fashion, but we cannot avoid the prognosis that the fashion will change. Bacteria are found in the body under all circumstances, and with favorable conditions of food, moisture and warmth, like all other living organisms, they multiply. They may be carriers of the disease ferment with which they are covered and on which they feed, and thus communicate disease. They carry it as does the unwashed doctor who goes from his septicæmic patient to the lying-in room, and are proved its cause much as we would prove the doctor the cause of puerperal fever by purifying him with a half scruple dose of mercuric bichloride or five ounces of pure carbolic acid, thus saving his patron from disease and death.

The physician of the future will learn to distinguish between the carrier and the cause of disease as well as between the germicide and antiseptic action of medicines.

BI-CHLORIDE OF MERCURY IN DIPHTHERIA.

BY MADISON REECE, M.D., ABINGDON, ILL.

During the past two and a half years I have used, exclusively, in the treatment of diphtheria, the bichloride of mercury in large and frequent doses. My attention was called to its use by reading the address of Dr. Wm. Pepper, chairman of the Section of Practical Medicine, before the American Medical Association for the year 1881. The statements therein made interested me to such an extent that, having on hand two cases of this disease of a malignant form, I determined to try its efficacy.

Up to this time I had found (as who has not?) true diphtheria one of the most fatal forms of disease that could be encountered. I had used the usual remedies, so far as I could observe without any effect upon the progress of the disease, and had arrived at the conclusion that in the worst forms of the disease the patient would die with or without treatment, but since adopting the method of treatment to be described, I have not felt the same anxiety as formerly, when called to a case.

To this date thirty-five cases have been treated in this way, with three deaths. Two of these deaths were the first cases referred to above, and although they ended fatally, I was thoroughly convinced that the remedy had special power to combat the disease, and I now believe that with my present experience in the use of this remedy, I could have saved one, if not both of these patients.

My method of preparing this medicine is to dissolve one grain of the bi-chloride in four ounces of rain-water; then, if the patient is old enough to gargle and rinse the throat and mouth, he is to do so every two hours, and immediately afterwards to take a teaspoonful internally. If the disease be of a severe form, it should be administered in this way every hour. The above dose is calculated for a child of five years of age. I have often used the same amount for a child of two years of age.

It will be observed within fifteen or twenty hours that the exudations on the tonsils and palate will begin to fade away and in a few hours more rapidly disappear. If then, unfortunately, as I found by experience in my early use of the remedy, the medicine be discontinued, the exudation will rapidly reappear, to be again dispersed by a return to the treatment, so that it is necessary to continue for a week, or even a longer time, the use of the medicine, not in such large and frequent doses, for it is observed that as soon as the patient shows signs of becoming bet-

ter, the effects of the bi-chloride are shown by nausea, or vomiting, or purging. But so long as the system seems to be laboring under the diphtheritic poison, these effects are not manifested.

I shall not attempt to give the *rationale* of the action of this medicine, but will only call attention to the fact that it belongs to that class of remedies which is rich in chlorine, and to which physicians have resorted for many years in the treatment of this affection, such as the tr. of the chloride of iron, chlorine water, chlorate of potassium, and here the bi-chloride of mercury. Also in view of the strong germicidal qualities of this substance, as recently demonstrated by Dr. Sternberg, we may reasonably suppose it has a destructive effect on the bacteria that swarm in the exudation in the throat and surrounding structures.

To show that this remedy in diphtheria seems to be appreciated abroad, I quote from Dr. Sternberg's article in the April number of the *American Journal of the Medical Sciences*, page 337: "A medical friend who has just returned from Vienna informs me that mercuric bi-chloride is at present the favorite remedy in that city for diphtheria."

My friends and neighbors, Dr. H. Judd, of Galesburg, and Dr. W. G. Piersol, of Hermon, have used this remedy in their practice with the most satisfactory results.

In conclusion, I would request those who may make a trial of this treatment to communicate the result to the JOURNAL, or if not wishing to do so, to the writer.

AN OCULAR POLYPUS.

BY S. POLLAK, M.D., OF ST. LOUIS.

A lady of 74 years presented herself with a "bleeding eye." Blood was oozing from beneath the upper lid constantly when the lids were open. The eye was perfectly sound, vision good, except when obscured by the blood. The upper lid was somewhat conical, and of a light bluish tint. On everting it, the conjunctiva was found perfectly smooth, but on pressure, directly on the superior orbital margin, a racemous, painless tumor was extruded from the sulcus, of the size, shape, and color of a Lawton blackberry, which was bleeding profusely on the lightest touch. It was very brittle and friable, and could have been crushed with ease. It was difficult to determine the nature of it. Was it benign or malignant? Was it an angiectasia, an erectile tumor, or a polypus? I am inclined to think it was the last. Though a very confined space for a polyp to emanate from and to grow, yet the mucous membrane everywhere is the habitat of polypi, and the upper sulcus of the eye is well adapted for its origin, although not for its development. It had to be removed at once, and it was promptly effected. With a curette the edges of the tumor were raised; they were found flattened against the conjunctiva, but not attached to it. A pedicle of about a centimeter was reached and readily twisted off with the forceps. Bleeding stopped at once. The levator palpebra superior being freed from the impediment of the tumor, resumed its function. The result was entirely satisfactory. No recurrence of bleeding. The wound was nearly cicatrized the next day. This polypoid tumor is carefully preserved, and will be accurately examined with the microscope.

MEDICAL PROGRESS.

MIDWIFERY AND GYNÆCOLOGY.

A FRAGMENT OF A CANDLESTICK IN THE UTERUS.—Dr. E. Hjerstrom reports the case of a working-woman 49 years of age who had been subject to periodical attacks of mania since puberty, with lucid intervals. Although single she is the mother of three children; was under treatment for an abundant and fœtid vaginal discharge. Examination of the uterus showed a neck covered with granulations, and irritated by a secretion which came from the uterine cavity; exploration of the uterus with a sound disclosed the presence of a metallic body. The patient would not admit that a foreign body had been introduced into the womb. After dilatation of the cervix, a piece of brass was extracted which had lodged in the superior portion of the uterine cavity. It proved to be a bobèche or socket, the tube of which measured cm.015 in length, and 2 centimeters in diameter, and of which the flange reached 4 centimeters in diameter. The patient did not know how the bobèche got there. Her menses had ceased for five years; her last confinement was twelve years previous; she never had any symptoms of parametritis, but had suffered from uterine colic particularly of late. Possibly the piece was detached from a candlestick introduced into the vagina through eroticism, and seized and retained by the uterus during the mechanical excitement.—*Hygeia Rome Medicale, Paris Medicale.*

CURE OF A SEVERE CASE OF HYSTERIA BY CASTRATION.—Dr. Bernh. Heilbrun (*Centralblatt für Gynäkologié*, Sept. 22) gives us the details of a case of hysteria in a girl 24 years of age, who was bedridden for seven years, suffering from excessive vomiting and cramps in the stomach to that extent as to lead to the diagnosis of ulcer of that organ; these symptoms were relieved sufficiently during her illness to allow of the retention simply of eggs and of milk. Contractions of all of the muscles of the body gradually developed themselves, commencing with the left lower extremity, the slightest movements causing severe muscular cramps. The ovaries were removed and found to be very different in size, the right 1 cm long, ¾ cm. broad, ½ cm. thick, irregularly shaped and of firm consistency; the left 3½ cm. long, 1½ cm. broad, 1 cm. thick, the surface uneven, tuberculated, and filled with a number of cysts the size of a pea. A fresh corpus luteum was noted.

The abdominal wound healed by the first intention. On the 12th day the patient left her bed; four weeks after the operation she could walk alone, and eight days later returned to her home; three months later the menses appeared without pain, but never returned. She now, ten months after the operation, walks from her home to her physician, a distance of 1½ leagues.

HYPODERMIC INJECTIONS OF ERGOTININE IN POST-PARTUM UTERINE HÆMORRHAGE.—Dr. C. Chahbazian (*Archives de Tocologie*) recommends this treatment for the following reasons:

1st. Ergotinine, alkaloid of the ergot of rye, can be employed with success in subcutaneous injections to arrest post-partum uterine hæmorrhage.

2nd. The hypodermic injections of ergotinine are indicated whenever a post-partum uterine hæmorrhage results from feeble uterine contraction, or uterine relaxation after a short contraction.

3rd. In the case of post-partum hæmorrhages arising from rupture of the uterus, tearing of the neck of the vagina, from hæmorrhoids or from cliteroid hæmorrhage, ergotinine has no effect.

4th. Five drops of the solution of ergotinine (of the preparation used by Dr. C. Chahbazian and made by Tanret) is sufficient to arrest hæmorrhage. The dose can be repeated if necessary, but not more than to the amount of fifteen drops; generally small doses of ergotinine act better than large in arresting post-partum hæmorrhage.

5th. The advantages of ergotinine over ergotine are: (*a*) More prompt action, which is surer and more constant over the uterus; (*b*) Absence of any local disturbance, as induration, abscess or gangrene; (*c*) Necessity for but a small dose to obtain a good result.

6th. Ergotinine may be employed successfully against secondary uterine hæmorrhages, and as a prophylaxis against post-partum hæmorrhages.

SCROTAL PRESENTATION DURING LABOR.—Dr. A. Prengmeber (*Alger Medical*) describes a case where the presenting part at the vulva was a tumor of the size of the fist, black as jet, bloody, and yielding to palpation. His first idea was of a fibrous tumor or a polypoid attached to the orifice of or within the neck of the uterus, pushed down by the presenting part and pressed against the pubis. In his mind was the feasibility of dividing the pedicle of the tumor by means of a bistoury or by a ligature, but, fortunately, by a further examination he reached the buttock and the anus, and found he had to deal with the scrotum. Delivery was readily effected, the discoloration soon disappeared, and the scrotum returned to its normal size.

ON THE REMOVAL OF THE PLACENTA.—Prof. Dohm (*Deutsche Med. Wochenschrift*) gives the results of his observations in the Königsberg Hospital, especially with regard to Credé's method, as follows:

1. In 1,000 cases of labor where the removal of the placenta was left to nature, the results were far better than in 1,000 other cases where Credé's method was employed.

2. The 1,000 cases of labor where the placenta was discharged spontaneously had markedly less hæmorrhage, retention of membranes and puerperal fever. Those that were treated according to Credé's method suffered to a considerable extent from troubles with the membranes, and in consequence there were many fatal puerperal affections.

3. Those cases where the placenta was removed in the first five minutes after birth by the Credé method, were the most liable to these affections. Those that were left longer before such extraction was attempted did better, but still remained considerably in excess of those where this was left to natnre.

MEDICINE.

THE USE OF ANTIMONY IN CERTAIN SKIN DISEASES.—Mr. Malcolm Morris, F.R.C.S.ED., Surgeon to the Skin Department of St. Mary's Hospital, writes:

Considering the close chemical affinity of the three important drugs—phosporus, arsenic and antimony—it is somewhat surprising that little use should be made of the last in the treatment of diseases of the skin. Of the three, arsenic is the one which has gained the greatest notoriety. It has passed alternately through the phases of great popularity—being considered by some a specific for every form of skin affection—and of equally undeserved disrepute. Now, however, we are forming a more rational estimate of its value; and, while acknowledging its utility in a few certain well-defined conditions, I have thought it might prove useful to bring before this Section some of the results observed during the administration of its near ally.

A certain share of attention has also been paid to phosphorus, but antimony has hardly been noticed. The probable reason for this is that antimony has been looked upon as a drug to be avoided on account of the dangerous symptoms produced by even apparently moderate doses. But the same argument that applies to arsenic, and strychnia and other drugs, applies with equal force to antimony—that the action depends entirely on the dose employed. We find in text-books that it has two actions—in the smaller pharmacopœial dose depressant or antiphlogistic, in the larger dose emetic. But no mention is made of its alternative action in repeated small doses. The sulphide, in combination with mercury and guaiacum, is the only preparation which has been used for this purpose.

Tartar emetic, or tartarated antimony, is the preparation I have used in these investigations the largest dose being $^1/_{32}$ of a grain, or seven and one-half minims of the vinum, only half of the mininum dose of the *British Pharmacopœia*. I must mention that in all cases in which the effect of the drug has been watched little or no local treatment has been used.

I will state now, in as concise a manner as possible, some of the more important diseases in which I have used the drug, leaving a more complete and detailed account for another opportunity.

Eczema.—It is now several years since my colleague, Dr. Cheadle, pointed out to me the value of antimony in the treatment of the acute form of this disease. In the majority of the cases which have come under my care, its beneficial effect has has been both marked and rapid. In the acute general eczema of adults, which usually commences somewhat suddenly by heat and burning on the flexor surfaces, and on the other characteristic positions, and is soon followed by abundant exudation of clear fluid, and in the form known as eczema rubrum, I generally begin

with four or five minims of the vinum antimoniale three time a day, increasing the dose gradually up to seven minims. After a few doses the exudation ceases, and the local irritation is much relieved; but, in order to prevent a relapse, it is necessary to continue the treatment until all traces of the eruption have disappeared. In actute eczema of children, the dose should be in proportion to the age of the child—half a minim or less up to six months, and one minim or less up to a year. As a rule, I have found both children and adults bear these quantities well, neither sickness or diarrhœa being produced. In the case of aged persons, however, the dose should not exceed three or four minims to begin with, as diarrhœa may result from the administration of a greater amount.

In the subacute forms, both of children and adults, similar doses, but continued for a longer period, are necessary. In chronic eczema, especially when localized, the use of antimony is less often successful; but even in this troublesome form, it relieves the acute exacerbations, and is occasionally followed by cure when other methods of treatment have failed.

In eczema impetiginodes of children, I have noticed little benefit from the drug till the scabs have been removed, and formation of pus checked by local treatment. Simple impetigo contagiosa from a local cause is not included in this category.

In the various forms of so-called lichen that occur in children, I have found antimony in the previously mentioned doses of the greatest value in relieving the irritation—a feature in which it resembles arsenic.

Erythema.—In most of the cases of erythema met with in practice, the eruption disappears without any special treatment; occasionally, however, when the disease is continued by fresh outbursts, antimony is of great service in modifying the course and relieving the burning and heat. There is a condition which is not clearly described either in special books on the skin or in those on general medicine, that I have found to be greatly benefited by antimony, whereas it is aggravated by arsenic. The attack usually commences suddenly, with heat and burning of the skin of the face, which is followed very rapidly by great swelling that often involves the eyelids. The smarting is severe, and pain is experienced when the part is touched. Occasionally vesicles or bullæ are formed on the swollen and inflamed skin. The patient feels ill, but there is no special rise of temperature. The disease usually runs its course in from three or four to ten or even twenty days. The chief feature of the disease is that it is almost certain to relapse. By some authorities this is considered to be idiopathic erysipelas—the public always call it so; by others it is looked upon as a peculiar form of eczema, and said to be associated with gout. I have seen several cases, and am inclined to think it may be called relapsing erythema, as it has none of the dangerous qualities of genuine erysipelas. Antimony acts in this disease as in acute eczema, by shortening the attack and diminishing the severity of the symptoms. It should be continued for a considerable time after recovery, to prevent, if possible, a relapse.

Prurigo.—In this troublesome affection, frequently met with in our out-patient rooms—the relation of which to the severe form known on the Continent as Hebra's prurigo, Mr. Morrant Baker pointed out at the International Congress of 1881—antimony is of great use. Three or four minims of the vinum, continued over a long period, allays the itching ro a large extent, and ofteu prevents the relapses of eczema. In several cases, after arsenic, iron, iodide of iron, cod liver oil, and numberless other tonics had been tried, antimony was the only drug that produced any benefit whatever. When given in the before mentioned doses continuously for more than a year, I have never seen sickness, diarrhœa, sweating, or debility; but, on the contrary, the appetite improves and the weight increases. I have not had the opportunity of trying the remedy in a patient older than 18½ years, suffering from this disease; but in one particular case of that age the benefit was most marked while the drug was being taken.

Sycosis.—I have given antimony in five well-marked cases of this disease; in four, it did not seem to produce any effect, either beneficial or otherwise; in the fifth, there was considerable improvement after the vinum had been taken a fortnight in seven-minim doses. It seemed to relieve the pain and burning; but, although the remedy was persevered with for over three months, the improvemeut was only temporary. The local treatment while the drug was being administered was olive-oil or vaseline. In none of these cases was there any bad effect; no depression, diarrhœa, sickness, or sweating.

Urticaria.—In a few cases of chronic urticaria, I have found antimony, like arsenic, of service in checking attacks, so long as the remedy was continued.

Psoriasis.—Though, in the majority of cases of psoriasis, arsenic is to be preferred to antimony, I have elsewhere called attention to the fact that, in certain persons, arsenic not only fails to relieve, but even aggravates the disease. I have in some of these cases, tried antimony, and have noticed that in a few instances improvement took place, while in others it seemed to have no effect.

I have been obliged to condense the facts in this paper into very brief space, but two points I wish especially to lay stress on; first, that tartar emetic—in doses of $\frac{1}{240}$ to $\frac{1}{32}$ of a grain, according to age—can not only be tolerated, but seems to have a decided tonic action; secondly, that it proves useful in those acute forms of skin disease that are usually aggravated by arsenic.—*British Medical Journal.*

PAINTING WITH TINCTURE OF IODINE IN VARIOLA.—In 1881, a patient entered the hospital of Konotop suffering from lumbar pains, and other symptoms indicative of the onset of variola. To satisfy the patient, Dr. Vetroff painted all of the lumbar region with tincture of iodine. The next day, this region was entirely covered by a variolous eruption, while only two vesicles were found on the rest of the body. The progress of the disease was very benign.

Having observed this curious case, Dr. Bojinski-Bojko (*Vratch*, No. 1, 1883), during the development

of an epidemic of variola in his district, commenced to paint with the tincture of iodine the anterior surface of the thighs of all the patients who presented the precursory symptoms of that disease. In the four cases so treated, the eruption confined itself strictly to the painted limits, and the prognosis was very favorable. Attempts failed to substitute sinapisms for the tincture of iodine.—*La France Mèdicale.*

ANATOMY AND PHYSIOLOGY.

INJECTIONS INTO THE OPTIC NERVE.—Pfluger (Soc. d'Ophth. d'Heidelberg) had injected in dogs two or three drops of a saturated solution of fluorescine, directing it toward the center, partly in the trunk of the nerve under the arachnoid, and partly into the sheath under the dura mater. In about two minutes, both eyes showed a fluorescence of the retina, which persisted for five weeks. This effect cannot be produced by introducing the fluid directly; it cannot be made to pass through the circulation, and requires at least 8 grammes to produce the result. A small quantity injected into the orbital cellular tissue gave no result. This proves that there is a direct communication between the two retinæ by the course of the optic nerve and of the chiasm, a fact confirmed by the experiments of Knies and Horner, who have in the same manner injected Prussian blue in cadavers, obtaining a coloration of the optic nerves of both eyes.—*La France Mèdicale.*

PANIFICATION.—In a carefully written article, which details the changes undergone during the fermentation in the process of bread-making, Mr. M. G. Chicandard (*Moniteur Scientifique*) arrives at the following remarkable conclusions:

1st. Bread fermentation does not consist in a hydration of starch followed by alcoholic fermentation.

2nd. It is not determined by a saccharomyces.

3rd. The fermentable matter is the gluten.

The gluten is rendered soluble by the secretion of a zymase from a microbe; then the hydrate produces a peptone. The microbe assimilates the peptone, and furnishes a number of the products of excretion—carbonic acid, hydrogen, azote, alcohol, acetic acid, butyric acid, lactic acid, leucine, tyrosine, and phenol.

4th. The crude starch is not modified either by the microbe or its zymase; the preparation simply forms from the soluble starch, the erythro-dextrines, and the achroo-dextrines, these dextrines being found especially in the most heated portions.

5th. The agent of bread fermentation exists normally in the grain of wheat, under the form of a mobile spherobacteria, the *microzyma glutinis*. It develops into the *bacillus glutinis*, which is accelerated by the soluble albuminoid matters contained in bakers' yeast.

6th. Bread fermentation, as described, is produced whenever leaven or yeast is added to flour and water. Any other addition may produce a secondary fermentation, explained by the first, but in the mixture produced we can always find those referred to as belonging to normal fermentation.

PHYSIOLOGICAL ACTION OF IODOFORM.—Dr. Gaetano Rummo (Archives de Physiologie) has just completed (October) the second of a series of experimental researches upon this subject in Vulpian's laboratory for experimental and comparative pathology. He finds:

1st. The mortal dose of iodoform is: For frogs, 2 centigrammes; for guinea pigs, by the stomach or peritoneal injection in from 2 to 3 days, 1 grm. .50, to 2 grammes; for rabbits weighing 2.100 to 2.300 grammes, 2 grm. .50 to 2 grm. 75 in 2 or 3 days; for dogs of the weight of 10 kilogrammes, 4 grammes in 2 or 3 days.

2nd. In frogs, the contractions of the ventricles of the heart diminish in number, and tend to an arrest in diastole. The systole increases in energy, is regular and ample. These heart movements always precede other functional troubles. The tracings indicate an increase in length of the ventricular systole, and a degree of persistence in the diastolic contraction that is suggestive of veratrine. Atropine does not modify the slowing of the heart. When under the full force of this influence, if the heart be removed from the body, it resumes its frequent pulsations, without reaching the number of pulsations as in the normal state. Iodoform has no action on the heart of the frog when the medulla has been destroyed. In the beginning of the absorption of iodoform, it produces a dilatation of the interdigital membrane, to which succeeds a progressive contraction. In small doses the action of the heart is modified, but the movements remain nearly normal. In large doses there is first an acceleration, then a retardation, and finally an arrest of respiration. In the mammalia there is also a diminution of the cardiac pulsations. In the dog 0 grm. .30, or 1 gramme, produces a retardation of the movements of the heart, and a slight increase in arterial tension, without diminution of energy, and without irregularities of the ventricular contractions. With 2 grammes, 4 grammes. and more, there comes a progressive diminution in the number of pulsations of the heart, with a lowering of the intra-carotid pressure of about 10 centimeters of mercury. In about four to five hours a gradual return of the tension to its normal state is noted, a return which is followed by an increase of the pressure. In large doses, after retardation of the cardiac pulsations, there is acceleration and irregularity. And the augmentation and irregularity of the respiratory movements, the periods of acceleration and retardation of the cardiac pulsations, the elevation and lowering of pressure, correspond to convulsive movements. These phenomena are not all noticed after division of the pneumogastrics.

3rd. In the dog, doses of 1 gramme to 1 grm. .50 do not influence thermogenesis. Doses of 2 to 3 grammes raise the temperature 1° to 1.5°. Doses of 4 to 5 grammes lower the temperature 4° to 5°.

4th. Iodoform acts directly upon the nervous centers, and secondarily upon the nerve trunks and upon the muscles. In the first period it exercises a depressing influence upon the anatomical elements of the nerve centers. At first it produces a diminution, which soon becomes complete, of voluntary motion.

At the same time there is a slight amount of anæthesia, and a diminution of reflex action. Later it produces an enfeeblement of the excitability of the nerves and of muscular contractility. In the second period it exaggerates, like a physical excitant, the irritability of the nervous centers, and produces contractions and tonic convulsions.

5th. In the dog, doses of 1 gramme to 1 grm. .50 produce no appreciable gastro-intestinal disturbance. The doses of 2 to 3 grammes cause indigestion, and those of 4 to 5 grammes produce vomiting, disgust for food, diarrhœic and dysenteric stools.

6th. Iodoform, from the commencement of its action, increases the secretions, particularly the salivary, biliary, and gastro-intestinal.

7th. Iodoform, in the state of an alkaline salt (sodium iodide ?), is eliminated by all the secretions. It is eliminated in small quantity, without being decomposed, by the respiratory tract. It passes out of the urine in small quantity, in the state of an iodate. The large doses of iodoform produce albuminuria and hæmaturia; they also arrest the elimination of iodine. Iodoform commences to be eliminated as iodine one hour after its ingestion into the stomach. It is promptly eliminated, and can be recognized in the urine three days after being taken into the stomach.

8th. The most important alterations produced by iodoform are, fatty degeneration of all the organs, particularly of the liver; glomerulo-nephritis, and acute anterior polyomyelitis.

9th. Iodoform is more active in preventing the development of bacteria germs than in arresting the pullulation of bacteria. Sodium iodate and iodoform dissolved in oil of turpentine kill the microbes in full proliferation.

VESSEL INSPECTION.

COPY OF AN OFFICIAL REPORT MADE TO THE SURGEON-GENERAL OF MARINE HOSPITAL SERVICE, BY JOHN B. OLIVER, M.D., SANITARY INSPECTOR OF THE MARINE HOSPITAL SERVICE AT LIVERPOOL, ENG.

1. "Sanitary history of vessel."

In steamships making short passages or voyages, no difficulty arises as to information, but in some sailing ships, from changes in captain and crew, it is difficult to gain knowledge as to sanitary history of last cargo, crew and vessel.

2. "Sanitary condition of vessel (before and after reception of cargo, with note of decayed wood). Note disinfections of vessel." To note condition of vessel before reception of cargo, it would require a person or persons constantly at the docks to board vessels prior to reception of cargo and then report to Sanitary Inspector. With regard to disinfection of vessel, the reports given are always vague. I find in a case of infectious disease occurring, that only berth or cabins are disinfected or stored, and not the whole apartment. You will please note in my report on various Bills of Health issued under head of "Note disinfection of vessel," my remark, disinfectant used, meaning that carbolic acid, etc., has been used by sprinkling, washing or scrubbing. Not that the vessel itself has been disinfected with sulphur or chlorine.

3. "Sanitary condition of cargo."

There is always disinclination to give full particulars of cargo, unless an abstract of bill of lading is asked for. They prefer giving the vague terms of "general." The cargoes carried to the United States during our inspection have, as a rule, been good, excepting a cargo or two of rags from Alexandria and Smyrna. I am informed that a quantity of rags from both places are still stored up at Liverpool, waiting only for shipment.

4. "Sanitary condition of crew."

In steamships coming to the States, all the crew were seen and reported upon. But in sailing ships which clear in the docks it is impossible to see all, as the greater portion of the crew jump on board only when the vessel is leaving the dock gates.

5. "Sanitary condition of passengers.

Only steerage passengers are seen. No doubt it frequently happens that when seen apparently well, some few have already the germ of disease undeveloped, and are taken ill on the passage. Of course if they are noticed they are immediately sent on shore.

6. "Sanitary condition of clothing, food, water, air-space and ventilation."

On the whole, clothing, food and water, good. As regards air space and ventilation in the forecastles for seamen and firemen in steamships, it is good in some, fair only in others, and in the remainder positively unhealthy. The steerage apartments for passengers are, as a rule, spacious and well-ventilated. Some few are cramped and not sufficiently ventilated, and when crowded with passengers, this condition must be felt. Fortunately, the passage is short. In a few instances the hospitals are in the steerage themselves and not too well ventilated. Others are in their proper places, *i. e.*, on deck and amidship. In the remainder the hospitals are forward and near urinals and water-closets. In sailing vessels the forecastles are mostly good and convenient.

I cannot omit mentioning the unsanitary condition of the water-closets in sailing ships and some steamers. On inspection they are found heaped up with excrement. As a rule the steamers have, or ought to have them flushed and a stream of water constantly running through them. Whenever this blockage was observed, the bill of health was refused until the closets were cleared out and disinfected. The explanations given by officers on board ships for this state of matters was, "that men who worked on board ship when loading and coaling caused it;" things, they say, are different when at sea. But there must be negligence somewhere. During the latter part of our inspection marked improvement in this respect was noticeable.

Referring to vessels employed in cattle trade I cannot but think the wooden structure constantly used, must in time get saturated with filth and germs of putrefactive disease, especially in times of "foot and mouth disease," spite of the reported washings with carbolic acid and lime. A light and reasonable

iron structure would be better. This could be removed and well washed after each passage and the decks more thoroughly cleansed.

I am informed considerable amount of diarrhœa occurs among passengers coming to the United States, particulary children, and when approaching and in the Gulf Stream. Judging from the large amount of unripe fruit I sometimes see in the children's hands during inspections, may this not be the exciting cause?

If found necessary at any future time to appoint inspections, I would suggest that no vessel be allowed to enter any port of United States without a bill of health from sanitary inspectors, and not make it optional, as heretofore. Such a rule would greatly facilitate inspections.

In conclusion, I hope the work has met with approval. I am certain the inspection has been beneficial.

JOHN B. OLIVER, M. D.,
Sanitary Inspector.

To Surgeon-General JNO. B. HAMITON, U. S. Marine Hospital Service.

A DAILY medical journal has just been started in Paris.

THE remains of Wm. Harvey were removed Oct. 18, from the vault under Hempstead Church and placed in Harvey Chapel in a sarcophagus provided by the Royal College of Physicians.

AT the solicitation of numerous friends, Messrs. Cole & Son (London), the well known microscopists and editors of "Studies in Microscopical Science," have undertaken to make a series of preparations, which shall serve for the perfect illustration of the text of Dr. Klein's "Manual of Histology.—*Medical Press.*

Dr. HERRMANN ZEISEL, Extraordinary Professor in the University of Vienna, has recently had a patent of nobility conferred upon him, Van Zeisel, whose name is a familiar word everywhere in the domain of medical literature, on account of his *Lehrhich der Syphilis* (a fourth edition of which appeared last year), was already distinguished by the title of Regiemngsrath.—*Medical Press.*

DISSECTION IN LONDON.—The *Medical Times and Gazette* says: "The session has commenced in real earnest in the metropolitan dissecting rooms, as the subjoined statement of the number of bodies being dissected shows: Taking them in numerical order, at St. Bartholomew's 27, at Guy's 19, at University College 18, at the London Hospital 17, at St. George's Hospital 8, at King's College 7, at the Middlesex 6, and at Charing Cross Hospital 4 bodies were placed on the table on October 1. The mode of preparing the bodies at University College Hospital is as follows: The bodies are injected with a solution of one pound of crystallized carbolic acid in half a gallon of glycerine and half a gallon of spirit. Each body is then sewn up in calico and put in a tank, and a solution consisting of glycerine one quart, water and spirit half a gallon each, and common carbolic acid half a pint, poured over it.

THE
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PUBLISHED WEEKLY.

THE EDITOR of this JOURNAL would be glad to receive any items of general interest in regard to local events, or matters that it is desirable to call to the attention of the profession. Letters written for publication or containing items of information, should be accompanied by the writer's full name and address, although not necessarily to be published. All communications in regard to editorial work should be addressed to the Editor.

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SATURDAY, NOVEMBER 24, 1883.

THE BRITISH MEDICAL ASSOCIATION AND ITS JOURNAL.—It will be remembered that previous to the last annual meeting of the American Medical Association some letters from England appeared in American journals, commenting unfavorably on the management of the *British Medical Journal*, and well calculated to discourage the then contemplated publication of a journal bearing a similar relation to the national organization in this country. Since the last annual meeting of the British Association in August last some unfavorable criticisms have again found their way into American journals regarding the same subject. Some of these criticisms have reached England and attracted the attention of a correspondent there, who sends us the following interesting comments:

"I see in a letter written to one of the American medical papers by Dr. Fothergill, statements made as to recent procedings at the annual meeting of the British Medical Association at Liverpool which are apparently intended to influence the future conduct and relations of the American Medical Association and its journal. It is well that it should be known that the statements are purely imaginative, and are apparently colored by Dr. Fothergill's desire to cover his retreat from the absurd position which he took up in his former communications. The only changes made at the last annual meeting was a change by which an intermediate and obsolete body called the Medical Council, which met only once a year, was abolished, and what was previously called the Committee of Council became the Council. To carry out this desirable arrangement the constitution of the

Council itself was slightly altered, and whereas formerly three-fourths of the elected members of the council were elected by the branches, and one-fourth by the Council, which was itself an intermediate body elected by the branches, now the whole of the elected members are elected directly from the branches. This change is of the very slightest character, in no way affects the constitution of the Committee of Council and very slightly adds to its numbers. All the previous arrangements for permanent members, past presidents, vice-presidents, treasurer, and chairman of council remain unaltered, the only change being that of giving the president of the year of the association a seat at all the committees. These amendments were proposed by the Committee of Council itself and were accepted unaltered after some rather noisy discussion by a few persons and unanimously confirmed at a special general meeting called for the purpose. No changes whatever were introduced by the general meeting into the programme proposed by the Medical Council. The position of the editor remains unaltered, and is the same as it has been for years, except that while the by-laws were undergoing the revision necessary for the purpose above stated, the clause relating to the editor was more fully expressed so as more clearly to state the actual existing relation.

"Dr. Fothergill had for the last two years put upon the notice paper, a notice of motion that the term of office of the Editor should be absolutely limited to ten years. The proposition, absurd in itself, he ultimately withdrew without taking a vote on it, conscious it would have had no chance of success. The senior and permanent members of Council, whom he politely terms "barnacles," retain precisely the same position and precisely the same influence as they always have had. Some attempt was made to alter their term of office, but it was rejected by the most decisive majority, so that the Augean stable, as he courteously denominates the Committee of Council, was certainly not cleansed of its 'barnacles,' as he, by his elegant figures of speech, seems to labor to induce his trans-Atlantic readers erroneously to suppose.

"The Association is in a high state of prosperous activity, and its journal now numbers 11,500 subscribers."

American Public Health Association.—An abstract of the proceedings of this body at its recent meeting in Detroit, and some of the papers read, will be given in the next number of the Journal.

Notice.—Some delay has occurred in sending the back numbers of the Journal to a considerable number of those whose names have been only recently forwarded to us by the Treasurer of the Association. This resulted from an insufficient supply of the first number issued. The deficiency, however, has been made good, and we now have an ample supply of that number for future use.

A few members and subscribers received for a time duplicate numbers of the Journal. If any such have still their duplicate copy of No. 7, they would confer a favor by returning it to this office.

American Climatological Association.—A few weeks since in noticing the formation of this new organization, we copied the list of officers, etc., from a New York medical journal. Among the names was that of "W. H. Geddings, M.D., of Arkansas." We knew that one well-known Dr. W. H. Geddings had been a resident of Aiken, S. C., for many years past, but thought it possible that another of the same name might be a resident of Arkansas.

We have since learned that the Arkansas was a mistake, and should have been *Aiken, S. C.*, in the original reports.

SOCIETY PROCEEDINGS.

AN ABSTRACT OF A CASE OF OBSTINATE "SCIATICA," WITH THE TREATMENT, INCLUDING NERVE-STRETCHING, AND RECOVERY.

BY DR. GEORGE J. SINTZEL, OF LONG GROVE, ILL.

During the early part of the month of July of the present year, I was called to see Miss E. S., æt 28; native of Germany; occupation, a domestic, and the daughter of a well-to-do farmer, who had been suffering for some weeks from a severe pain in the right hip. From her I elicited the following history: That she menstruated regularly; that her previous life had been healthy, except in July, 1882, when she contracted malaria that lasted two months; that after her recovery from this malady, she continued to be in good health until last April, when she began feeling pain in various joints, changing from one to another, as in rheumatism. She stated, however, that she thought her present trouble was the result of her being "barefoot" in the cellar whilst churning, because she experienced acute pain in a few hours later about the right thigh and hip. On examination, I found no swelling, but there was marked tenderness in the right hip joint, which extended posteriorly down the thigh. The pulse and temperature were normal. Judging from the history of her having had previously pains of a rheumatic character, I prescribed salicylic acid in solution, alternated with iod. pot., morphia and vin. colch. sem., and applied a good-

sized cantharides plaster to the surface over the joint, as I would for an ordinary case of rheumatism. I left her with the expectation of finding her much relieved at my visit next day.

Upon seeing her again, I was quite surprised to find her as she had been the day previously, and complaining of greater pain. I thought possibly the irritated surface in this region from the blister annoyed her, with, perhaps, some other effects that it might produce upon the system, notably the kidneys, which led me to examine the urine, and I did not give as much attention to the pain (the real seat of the trouble) as I otherwise would think of doing. Upon examining this secretion, I found it quite red in color, and normal in every other respect, and as there was no fever present, I considered my case "*in statu quo.*" I then told the attendant to re-apply the "fly blister" toward evening, and continue the other remedies. The third day, when visiting her, I was informed that her pain had assumed a different character, that it had become jerking and lancinating, and extended from the hip down the posterior portion of the thigh, and it would shoot out at the external malleolus; it also had become paroxysmal, and was accompanied with rigors and great hyperæsthesia of the limb. Upon questioning her closely regarding any specific taint, and the characteristic symptoms of locomotor ataxia, I found that none of these were present, and I diagnosed the case to be one of sciatic neuralgia, or a typical case of "sciatica," and told the parents of my conclusion. Considering that she had been affected with malaria the year before, and with the present symptoms of "chills," I gave her 5 gr. doses of quinine, with ¼ gr. of morphine every two hours, and again resorted to the application of a fly blister along the course of the nerve.

The next morning she was somewhat relieved. I then increased the quinine to ten grains, given with the same quantity of morphine every three hours. In the evening of the same day, however, a messenger summoned me quickly to the patient, who was raving with pain—her screams could be heard at a neighbor's house a quarter of a mile distant. Upon my arrival I injected (hypodermically) one-fifth grain of morphine, inserting the point of the syringe over the course of the nerve, and plunging it deeply in the tissues. She very soon experienced relief, which lasted only fifteen minutes, I then waited half an hour and injected one-sixth grain of morphine, and this quantity was repeated successively every thirty minutes until the operation had been performed four times, when this procedure was withdrawn. For the succeeding five days she continued taking the quinine and anodynes, until the former remedy was increased to a drachm a day with no preceptible change or relief. As the disease progressed, the symptoms became more distinctively marked. The darting pain became more perceptibly of a lancinating and paroxysmal character, and was especially of a severe form at night, and varied in its exacerbation from one to twelve hours, when it would gradually subside to a milder form, but at no time was she completely free from acute pain. Her nocturnal suffering would sometimes be ameliorated by the hypodermic use of morphia and atropia, and hot fomentations. The further treatment in the meanwhile consisted in giving her freely all the different hypnotics at command, including chloral hydrat, belladonna and aconite, and in combination with these agents we used a small electric battery to its fullest extent. This treatment was continued for ten days, and during a portion of the time we had hopes of its efficacy in that the relief would be permanent, but there was always a tendency to an increase of the trouble after a few hours or a day. As the field of remedies used in this troublesome affection are large to select from, I determined to pursue another course, and gave her phosphorus and the various chalybiate preparations with arsenious acid and nux vomica.

The battery was also used in connection with this treatment. This with proper nourishment and the constant use of anodynes, was continued for two weeks longer with no visible signs of improvement. The patient then suggested a consultation, and this idea I was much pleased with, and Dr. F. E. Wadhams was called to see her. We concluded to administer iod. pot. in large doses three times a day, and re-apply a fly-blister; also, to keep the bowels open freely, and administer only sufficient anodynes to control the pain. After five days trial of these remedies, they proved to be useless, and the operation of nerve-stretching was thought to be the only resort to effect a cure. However, other drugs were tried, including galvanism, hot hip baths, chloroform and soap liniments and massage for a number of days longer. The patient was confined continually to bed, and had been for several weeks, and as all therapeutical measures were given a sufficient length of time to produce their effect, and as both limbs, especially the right one, had become very considerably atrophied from her not being able to be about the house, although she was well nourished and had been at no time during the period of her trouble very sick, such as suffering from loss of appetite, or afflicted with nausea. The bowels remained soluble and quite regular, and the pulse and temperature normal. Her menses appeared regularly, and the flow was natural in other respects. Being disgusted with all that had been done, I insisted on the operation of stretching the nerve, which she emphatically objected to having done. I then visited her every two or three days for the succeeding three weeks, the treatment consisting chiefly of anodynes and the use of other ordinary remedies which resulted in no sign of curing the patient, and I explained to her that this additional length of time had been lost and her suffering had become quite unendurable. She now realized that something radical must be done, and she no longer resisted fromdread of an operation, and informed me that she would rather die than suffer the agonizing pain any longer, and that she was anxious for it to be done. On September 23d, Dr. L. H. Montgomery was invited in company with Dr. F. E. Wadhams to see the patient with me, and with this additional counsel we proceeded to perform the operation of stretching the nerve in the following manner:

After she was brought under the influence of the anæsthetic (chloroform being used), the patient was

placed on her left side. Then an incision was made by the first named gentleman, corresponding with the middle portion of the pyriformis muscle, and carried downwards about three inches. After the integument adipose and superficial fasciæ had been cut through, the gluteus maximus was divided, exposing the lower border of the pyriformis. He then inserted the index finger of the right hand, and, by gentle manipulation, was soon able to insinuate one, then two, fingers under the nerve, while the limb was extended and held by an assistant. The surgeon made constant traction for 15 minutes, until the nerve was stretched from above downwards, and vice-versa, to the extent (estimated to be about one inch); it is supposed also that the operator made a traction of *80 pounds*, as we determined subsequently in undergoing some experimental physical exercise. The wound was then cleansed by an antiseptic dressing of listerine, one part to six of water. There was no hæmorrhage but what was easily controlled by sponging. The edges of the wound were brought in apposition by three deep sutures of carbolized catgut and three superficial stitches; then with a simple pledget of cloth, saturated with the listerine solution, applied, which was secured with a bandage, completed the dressing. She was placed in bed, and expressed herself at once as being greatly relieved, and in the course of an hour we left our patient feeling very comfortable. I saw her again next day. She had not fully recovered from the effects of the anæsthetic, but the pain had completely ceased in the thigh. She spoke of having a slight pain extending from the knee to her ankle. I dressed the wound and administered small doses of chloral hydrat. On the second day after the operation, there was a slight rise in her temperature perceptible; the other symptoms remained the same. I prescribed two grain doses of quinine, to be given her every three hours, and dressed the wound. Third day; temperature normal; pain between the knee and ankle subsiding; dressed the wound again, and continued the tonic. Fourth day; all pain had ceased entirely, but a symptom that was somewhat aggravating had set in, as she remarked, "*There is cold water circulating through my limb.*" I ordered warm fomentations applied and resumed the chloral. There was no suppuration and the stitches were removed—wound nearly healed. Fifth day—The disagreeable sensation, "shooting of cold water," had considerably decreased, patient got up, treatment continued. Sixth day—The patient sat up for five hours. She felt well, but somewhat weak, and walked the first time in several months. Seventh day—She was up and about all day. No anodynes have been necessary the last two nights *and the wound is completely healed.* As the case presents nothing further of interest, I will state briefly in conclusion that the patient continued increasing in strength, her limb resumed the normal size, and she did not feel another paroxysm of pain after the operation, and the pains below the knee were extremely slight. She resumed her household duties in ten days and has remained well to date, Nov. 24th, there being not the slightest trace of any recurrence of the trouble, and she considers herself in perfect health. I am fully aware that in a single case we should not base our conclusions that every one will be as promptly cured as the writer's was, but it demonstrates what an obstinate and persistent course sciatica may pursue in a young subject who has always, enjoyed excellent health, *sine* the presence of any specific cause or neurotic taint whatever, and contrary to all treatment, would or did not subside under any method other than that of nerve-stretching, and my not having noticed in any of the researches available a typical case of this kind, arising from the cause mentioned, nor the operation described in detail. In reporting this case from a rural district (which I regard as having passed to a chronic form, being about three months duration,) my excuse for having done so at some length and giving the readers of the JOURNAL the principal points here for record is with the hope of ascertaining more in the shape of statistics regarding the percentage of cures, either from the use of therapeutical measures or surgical procedures, either by the application of the white-heated iron or the more modern way of nerve-stretching, L. H. M.

REVIEWS.

THE PATHOLOGY, DIAGNOSIS AND TREATMENT OF THE DISEASES OF WOMEN. By Graily Hewitt, M. D., F. R. C. P., Professor of Midwifery and Diseases of Women, University College, London. Edited with Notes and Additions by Harry Marion-Sims, M. D., Attending Surgeon to St. Elizabeth's Hospital, N. Y. New York: Bermingham & Co., 1883. 2 vols., $2.25 per vol.

The fourth edition of Hewitt's "Diseases of Women," having been rewritten to a large extent, now appears under the auspices of Harry Marion-Sims, of New York, with various [bracketed] annotations by the editor scattered through its pages. This is a form of revision having certain advantages in the direction of clearness and completeness. The items of difference in the opinions of the author and his editor or reviser are thus sharply defined, so that reference is assisted in the casual use of the book. This is the form of annotation employed in the revised "Holmes's Surgery,"

Hewitt's treatise, in its latest as in its earlier form, lays great stress upon the factor of impaired nutrition in the production of the various deformities and malpositions of the uterus, which he believes to be the usual cause of most complaints in gynæcology.

"Chronic starvation" thus underlies the writer's theories of uterine pathology, making general causes to supersede local ones, in contradiction to the ordinary assumption. In volume I this proposition is formulated as follows:

"That alterations in the shape and position of the uterus are rarely witnessed except in individuals whose general strength has become seriously impaired by a systematic, and often a lengthened practice of taking little food."

Aside from this important generalization the body of the work differs but little from the standard

treatises upon the somewhat narrow specialty it embraces.

It may be set down as certain that in England the medical profession looks with less favor upon the exclusive specialists who announce themselves as such, than in this country. The operative part of gynæcology belongs very fairly to general surgery, and the rest of the subject is so closely interwoven with general medicine, neuropathology and obstetrical practice, that its narrowing tendency in late years may need some watching.

More especially is this true in America, where the weakness of all enactments governing the practice of medicine, and the scandalous looseness which prevails in the popular medical colleges of New York and elsewhere, has filled the profession already too full of half-trained and half-qualified practitioners.

Such men are peculiarly unsuited for specialists, because peculiarly apt to be narrowed and dwarfed by their want of general training.

Professor Hewitt's book is the best English treatise on women's diseases extant, and also the most popular. It is not, however, in all respects equal to similar German and American works, and is by no means so widely consulted and followed among us.

E. W. A.

MISCELLANEOUS.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT UNITED STATES ARMY, FROM NOVEMBER 9, 1883, TO NOVEMBER 16, 1883.

Bache, Dallas, Major and Surgeon; ordered to report in person to the commanding general Department of the East, for assignment to duty. (Par 10, S. O. 259, A. G. O. November 12, 1883.)

Gardiner, Jas. B. W., Captain and Assistant Surgeon; relieved from duty at Fort Huachuca, and assigned to duty as Post Surgeon at Fort Bowie, A. T. (Par. 1, S. O. 104, Department of Arizona, November 8, 1883.)

Egan, Peter R., First Lieutenant and Assistant Surgeon; upon being relieved from duty at Fort Bowie, A. T., to proceed without delay to Fort Huachuca and report to the commanding officer at that post for duty. (Par. 1, S. O., 104, Department of Arizona, November 8, 1883.)

LIST OF CHANGES IN THE MEDICAL CORPS OF THE NAVY DURING THE WEEK ENDING NOVEMBER 17TH. 1883:

P. A. Surgeon, C. H. H. Hall ordered to the Naval Academy, Annapolis, Md.

DR. DOVER.—As many of us as there are who prescribe Dover's powder daily, it is doubtful that more than a baker's dozen know the origin of the name. Dr. Dover, so says the *Midland Medical Miscellany*, the originator of "Dover's Powder," was a friend and probably pupil of the great Sydenham. He commenced practice in Bristol, where, having made some money, he longed to make more. The roll of the College of Physicians tells us that he joined with some physicians in fitting out two privateers for the South Seas, in one of which, the "Duke," he himself sailed from Bristol August 2, 1708. On the passage out they touched at the Island of Juan Fernandez, where Dover, on the 2d of February, 1709, found Alexander Selkirk, who had been alone on the island for four years and four months, and whom Dover brought away in the "Duke." In the April following, Dover took Guaguil, a city or town of Peru, by storm. In December, 1709, the two privateers took a large and valuable prize, a ship of 20 guns and 190 men, in which Dover removed from the "Duke," taking Alexander Selkirk with him as master, and finally reaching England in October, 1711. After this cruise, Dr. Dover removed to London, where his practice soon became great. His patients, and the apothecaries who wished to consult him, addressed their letters to the Jerusalem coffee house, where at certain hours of the day he received most of his patients.

THE SHOOTING OF DR. ROCHARD.—Dr. Rochard, of Paris, was recently shot by a lunatic, who had a few days before been discharged from a lunatic asylum as "cured." He gave himself up to the authorities, and confessed that for some days he had been haunted by voices telling him that, to remove the spell that was hanging over him, he should kill somebody. Accordingly he hid himself behind a tree in the Avenue Gabriel, near the Champs Elysée, and Dr. Rochard being the first to pass, became the victim. At last accounts the doctor was not considered out of danger, and no attempt has been made to extract the bullet.

NECROLOGY.

WASHINGTON, October 12, 1883.

PROF. N. S. DAVIS, M.D., EDITOR,

DEAR DOCTOR:—I observe in the September number of the *American Magazine of History* (p. 260) a letter from H. E. Hayden requesting information as to the Brown of Maryland and Virginia, and particularly as to the Doctor Brown who was called in consultation with Drs. Craik and Dick during the last illness of General Washington. The enclosed sketches of the physicians of this family of Browns were prepared years since, and are included among the manuscript biographies in the "Toner collection" of the Library of Congress. As they supply the data requested by Mr. Hayden, should you deem the JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION a proper channel to convey the information, they are placed at your disposal. Very respectfully,

J. M. TONER, M.D.

BROWN, GUSTAVUS, SR., was born in Haddingtonshire, near Edinburg, Scotland, and baptized the same day—April 26, 1689; died of apoplexy, at his

residence, known as Rich Hill, near Port Tobacco, Md., in 1765, aged 76. He was the grandson of Gustavus, and son of Rev. Richard and Jean (Mitchelson) Brown of Lalton Haddingtonshire, near Edinburg, in Scotland. His mother was Jean, daughter of Sir George Mitchelson, of the house of Middleton, Dalkeith. The Doctor's education, both academic and professional, was acquired at the renowned schools of Edinburg.

Although quite young, he was engaged as a surgeon on board one of the King's ships, which appeared off the coast of Maryland in May, 1708, where he was permitted to land; but shortly afterward a storm arose, and the ship was compelled to weigh anchor, and he was left in America, with nothing but his clothes upon his back.

He at once made his condition known to the inhabitants, who congratulated themselves on the acquaintance of an educated physician, and promptly supplied his wants. He engaged in the practice of his profession at Naujemay, Md., where, by his correct habits, skill, and devotion to his profession, he soon acquired the confidence of the people, and a large business. A record made by the Doctor himself reads: "I came into Maryland in May, 1708, and in 1711 married Frances Fowlke, daughter of Gerard Fowlke, in Naujemay, who was born 2d of February, 1691. In 1711 he was married to Francis, daughter of Gerard Fowlke, one of the most wealthy and aristocratic gentlemen in the colony of Maryland. The Fowlke family was from Staffordshire, Eng.. and highly connected. The first of the family, says Burke's Peerage, having been knighted for services in Palestine during the crusade, as a reward for having saved the Christian camp under Richard I from a night attack from the infidels.

The doctor's professional business became large and lucrative. He was decidedly the leading physician of that period in Maryland and that part of Virginia on the Potomac, adjacent to his residence. After acquiring a handsome fortune by his profession, he returned to Scotland, with the thought that he might pass the remainder of his life there, and purchased an estate called "Cothel Mainside," and entailed it on his eldest son. But after a residence of a few years, he returned with his family to his old residence at Rich Hill, near Port Tobacco, Charles Co., Maryland, where his wife died in 1744, aged 53, leaving him a family of nine daughters and one son. First, Frances, who married the Rev. John Moncure, a descendant of the Huguenots of Stafford Co., Virginia; second, Sarah, who married the Rev. James Scott, of Prince William Co.. Virginia; third, Mary, who married Rev. Wm. Hopkins, and afterward Mr. John Thulkeld, of Georgetown, D. C.; fourth, Christian, who married Mr. John Graham, of Dumfries, Prince William Co., Virginia; fifth, Elizabeth, who married Dr. James Wallace, of Stafford Co., Virginia; sixth, Richard, who was educated in Scotland, and attained orders in the Eestablished Church—he married Miss Helen Bayly, in Scotland, and after her death the widow Key, formerly Miss Black, and afterward the widow Hawkins, formerly Miss Smoot; seventh, Jean, who married the Rev. Isaac Campbell, of Charles county, Maryland; eighth, Cecelia, who married first Dr. Key, and after his death Mr. Thomas Bond, of St. Mary's county, Md.; ninth, Anne, who married first Rev. Samuel Clagett, afterward Robert Horner, of Ripon, England, and lastly Mr. Samuel Hanson, of Green Hill, Charles county, Md. Dr. Brown, after the death of his first wife, married Mrs. Bond, by whom he had two children, Dr. Gustavus Richard Brown, at Rose Hill, near Port Tobacco, and Margaret, who married the Hon. Thomas Stone, of "Havre de Venture," Charles county, Maryland, one of the signers of the Declaration of Independence. During the religious wars of Northern Europe, about 1630, a number of young Scotch gentlemen of martial spirit joined the command of the renowned Gustavus Adolphus, of Sweden, among whom was the great-grandfather of the subject of this sketch. He had the address and ability to attract the attention of the King, which led to an intimacy between himself and the Prince Gustavus Vasa. This brought him into intercourse with the royal household, and finally led to a love affair, and a secret marriage between him and a Swedish princess, the niece of Gustavus Vasa, with whom he retired to Scotland after his military engagements ended. A grandson bore the name of Gustavus, and ever since it has been a favorite name in the family. The doctor's son by his second wife was named Gustavus Richard. He received his academic and medical education in Edinburg, graduating in 1768, and practiced with great success at Port Tobacco, Md. The death of the subject of this notice was sudden. He presented during his life a costly and magnificent organ to the Episcopal Church at Port Tobacco, and was always eminent for his charities. A portrait of him in oil is preserved by his descendants in Virginia, which shows him to have been a large and handsome man. His remains were interred in a family vault on his estate at Rich Hills, Md.

BROWN, GUSTAVUS RICHARD, M.D., born at Rich Hills, near Port Tobacco, Md., in 1748; died at the same place in 1804. He was the son of Dr. Gustavus Brown, Sr., by his second wife, Mrs. Bond. He received a good preparatory education and was then sent to Edinburgh, where he completed both his academical and medical studies. He graduated M.D. in 1768, his thesis was "De oetu animalium caloeris," a copy of which the writer has before him. He had for companions in his studies at Edinburgh and the Hospitals of London, Drs. Reed, of Philadelphia, and McLong, of Virginia. On his return to America he settled first at New Jersey, and from thence he moved to "Rose Hill," near Port Tobacco, and engaged in practice, which soon became extensive both in Maryland and Virginia. He married Miss Graham, of Dumfries, Prince William County, Va., by whom he left three children. He was a patriot in the Revolution, attended professionally soldiers. Represented Charles county in the State Legislature in 1774, and was a magistrate, at least, took a deposition in Charles county, October 18, 1776, relative to the burning of Mr. Brent's house by British forces from the armed vessel "Roebucke." In a letter of

the signer, Mr. Thomas Stone, of Maryland, from Philadelphia, September 30, to the Council of Safety, mentions the arrival of Dr. Brown, to whom he had written the day before. This is presumably his brother-in-law, Dr. Gustavus Richard Brown, and stating that he had been very ill since his arrival (American archives, 5 sec., vol. II. page 602). His estate was ample, his professional means considerable, his house large and elegantly furnished, and his grounds and garden cultivated with great care and most exquisite tase. His hospitality was unbounded. He was an affectionate husband, loving father and a kind master. His reputation as a skillful surgeon, and a learned physician was quite equal to his father's or that of any other physician of his day in Maryland or Virginia. Doctor Brown, practically a neighbor, was on intimate if not confidential terms with Gen. Washington, and was called in consultation in the last illness of the Father of His Country, whose death cast the deepest gloom over the American people. The doctor died greatly lamented by the public, and by a numerous connection and circle of friends. His remains are interred in the family burying ground on his farm, Rose Hill, Charles County, Md.

BROWN, WILLIAM, M.D., son of the Rev. Richard and grandson of Dr. Gustavus Brown, Sr., of Rich Hills, near Pt. Tobacco, Md.; born possibly in Haddingshire, Scotland, where his grandfather left an entailed estate, and where his father married while attending the University of Edinburgh.

His education, both academical and professional, was obtained at the renowned University of Edinburgh, where he received his degree of M.D. in 1770. He always, however, called himself an American, and he settled to practice his profession in Alexandria, Fairfax County, Va., where he soon rose to the front rank of the profession. He was a man of polished manners and high literary culture, and was intimately acquainted with Washington, Jefferson, Madison and the leading men of that period. He was Physician-General of Virginia during the Revolution and secured land form the State after the war. He married Miss Catharine Scott, sister of Gustavus Scott, of Kalorama, near Washington City, by whom he raised a numerous family. One of his sons, Gustavus Alexander Brown, studied medicine, and practiced in Alexandria. The subject of this notice was buried at Preston, on the Alexander estate in Fairfax county, near Alexandria.

BROWN, GUSTAVUS ALEXANDER, M.D., born about 1790 in Alexandria, Va., died in 1835 in Smithland, Ky. His father, Dr. Wm. Brown, of Alexandria, was Physician-General during the Revolutionary war. His mother's maiden name was Catharine Scott, of Scotch descent. The subject of this sketch graduated at Princeton, N. J., and studied medicine at the University of Pennsylvania, graduating in 1815. The subject of his thesis was Dysentery. He commenced practice in Alexandria and continued until 1825, when he returned to Smithland, Ky., in the neighborhood of which town he owned a large estate inherited from his father. He practiced medicine in Smithland till 1835 when he was killed in a private encounter. He was never married. His property at his death went to his heirs at law, he having died intestate. He was buried at Smithland.

J. M. T.

IN MEMORIAM.

[From "*Spence's People's Paper*," Covington, Ind., Oct. 11, 1883.]

DR. C. V. JONES, son of James M. and Elizabeth Jones, was born near Peekskill, on the Hudson river, in the State of New York, March 22, 1812, and died in Covington, Indiana, on Friday morning, October 5, 1883, aged 71 years, 6 months and 13 days.

In his boyhood his parents removed to the town of Spencer, in Tioga County, New York, where he spent his youth and early manhood, surrounded by the hardships and vicissstudes known only to frontier life. As a rail-splitter and wood-chopper he excelled, but while the sound of his axe was awakening new echoes in the forest, there were quickened within him new impulses and aspirations, and he honored this life of toil by using it as a stepping-stone to higher attainments. Choosing the profession of medicine, he applied himself with zeal to its study, for several years, under the private instructlon of a competent preceptor. With the earnings saved from his hard manual toil, he succeeded in taking a course of lectures at Herkimer College, and securing a license to practice medicine and surgery, under the laws of the State of New York, in the spring of 1834. On April 13 following, he was united in marriage to Phebe Watson, who has been his constant and faithful wife until this final sleep from which he awakened to enter upon the joys of the life beyond. Dr. Jones came of good Methodist stock. His mother, whose maiden name was Elizabeth Sproson, was a devoted member of this church, and her father, John Sproson, was a class leader in the old John street Methodist church, in the city of New York. Of this church, Dr. Jones was a life-long consistent member and supporter. His house has ever been the home of the itinerant. In 1838, Dr. Jones came to Indiana, settling first in Plymouth, Marshall county, whence, at the expiration of two years, he came to Covington, where he has ever since resided. During all these years, he has been closely and prominently identified with the interests of this town and county. As a physician, Dr. Jones enjoyed the respect and esteem of his profession, and his practice was very extensive. His reputation as a surgeon was especially prominent, his services as such having been required over a large territory. Combined with his skill and professional attainment, were a tenderness of heart, and sympathy with his suffering patient, which ingratiated him into the love and confidence of the household. He was the unanimously chosen President of the Fountain County Medical Society, in 1867, and upon its reorganization, in 1876, he was again chosen its President. He was a member of the Indiana State Medical Society, also of the Tri-State Medical Society, composed of physicians from Illinois, Kentucky and Indiana, and he was also a member of the American

Medical Association. All of which facts, more than most profuse encomiums, speak of his standing in the profession.

Dr. Jones represented this county in the State Senate from 1843 to 1846. He was appointed surgeon of the 1st Regiment of Indiana Volunteers in the war with Mexico, and served one year. In 1856, he was the candidate for elector on the Fremont presidential ticket. In 1860, he was elected Treasurer of the county, where he served a term of two years. In 1862 he was appointed provisional surgeon to the 40th Indiana Regiment, after the battle of Pittsburg Landing, remaining with it one month. The following winter, in February, 1863, he was commissioned surgeon of the 63rd Indiana Regiment, and served as such until March, 1865. He served as Commissioner of the first draft from Fountain County, under appointment from Governor Morton, between whom and the Doctor friendly and confidential relations existed. In all these public services, Dr. Jones acquitted himself honestly and creditably, laying down the escutcheon of his position or office untarnished for his successor. He was zealous in his advocacy of his principles, and uncompromising in their maintenance. Dr. Jones was the President of the first Grant Club organized in the United States. His many acts of kindness and thoughtfulness for the soldiers are yet recounted by them with much warmth of feeling for the doctor. Many times, on the long weary marches during the late war, did the doctor give up his horse to the feet worn and weary private, and take his place in the rank and file, to trudge along on foot. In all his relations in life this humaneness of heart was manifested by him. As a friend, he was warm and true; as an official, obliging and considerate; as a neighbor, kind and helpful; as a husband and father, loving and affectionate. A long life, full of kind deeds and helpful services, is closed, the memory of which will linger with this people like the sweet perfume of a rose. The funeral services were conducted by Rev. C. E. Lewis, pastor in charge of the M. E. church of this place, and for whom Dr. Jones entertained the highest regard. The 15th verse of the 17th Psalm furnished the text for the occasion. His remains were deposited in the Prescott Grove Cemetery, followed by a large concourse ot sympathizing friends.

Capron, George, M.D., of Providence, R. I., was born in Cumberland, May 16, 1802, died at his residence in Providence, September 21, 1882. He was the son of Asa, and grandson of Joseph Capron. This name is probably Italian in origin. The doctor's mother was Sarah, daughter of Timothy Mahoney, an educated Irishman who came to America and devoted his life to teaching; owing to business reverses the doctor's father was unable to give his son much of an education. His youth was, therefore, passed on a farm and in a cotton factory. But he possessed a love for study and was in fact self-educated, acquiring while at work not only an ordinary English education but a knowledge of Latin and Greek. At the age of eighteen he began the study of medicine under Dr. Levi Wheaton, but at the same time continuing his studies in the classics. He attended one course of lectures at Harvard and a season at Brown University in Providence, his preceptor being at the time one of the professors in that school when he took the degree of M.D., in 1823. Immediately after he began practice at Fruit Hill, when he soon acquired a supporting country practice. At this period he took up the study of botany in which he attained some proficiency. In 1836 he removed to Providence where he became extensively employed. In 1869 he removed to the West, having accumulated some sixty thousand dollars by his profession, which he invested in mills and other property which proved disastrous. He then returned to Providence and resumed practice which he continued with occasional vacations to the time of his death. He was at one time physician to the United States Marine Hospital in Providence, and for three years surgeon in a State military organization, and during the war served for a time as volunteer surgeon at Hampton, Va. He was elected a member of the Rhode Island Medical Society in 1826. He was an active member and filled successively all its offices, and in 1850 was elected its president. He became a member of the American Medical Association in 1849 and attended meetings in 1853, 1865, 1874 and 1876. Dr. Capron was a close observer and was a good writer, contributing many papers of practical value to the *Boston Medical and Surgical Journal* and to the transactions of the Rhode Island Medical Society. He also published in 1844 a large popular work on medicine which had an extensive sale. In 1854 he added a supplement to it. He has left much unpublished material; he wrote a beautiful hand was a correct and ready composer, and rarely or never made an erasure.

Doctor Capron was twice married; first, July 9, 1823, Clariet Brown, who died in April, 1875. On June 1, 1876, he married Mary Ann Nixon, who survives him. His remains were interred in the North Burial Ground, and a memorial sermon preached by the Rev. Augustus Woodbury at the Westminster Congregational Church, September 24, 1882.—[From a sketch by W. E. Anthony, M.D.]

J. M. T.

Newman, William G. H., M.D., of Washington, D. C., was born in Princess Anne, Somerset county, Maryland, in 1827, died at his residence in Washington, November 6, 1883. He was descended from an old Maryland family that emigrated from England and settled in the State as early as 1650. He was educated at Washington College, Baltimore, and at the Jefferson College, Washington county, Pa. Dr. Newman read medicine with Prof. N. R. Smith, in Baltimore, and received his medical degree from the university of Maryland in 1849. He practiced for some years in Georgetown, but returned to Washington, where he acquired a large practice in the west end of the city. Doctor Newman was at one time a member of the city council, and was at the time of his death the physician in chief of St. Ann's Infant Asylum, a position which he has held for fifteen years. He was also for many years one of the police surgeons,

and has been for years one of the staff of Providence Hospital; was a member of the old board of health of the city, and was for some years on the board of visitors to the Washington Asylum or Almshouse. He was a member of the Medical Society of the District of Columbia in 1858, also a member of the Medical Association of the D. C., and a member of the American Medical Association since 1868, attending its meetings when it convened in Washington in 1870 and 1872. Shortly after entering the profession Doctor Newman was united in marriage to Mary Rider, of Somerset county, Md., by whom he had six children, who survive him—one of his sons, Henry M., being a practicing physician in this city. On the anniversary of Dr. Newman's death the Medical Society held a special meeting which was numerously attended, when resolutions of respect for his memory and of condolence with his family were passed, and the society resolved to attend his funeral. His funeral took place from St. Stephen's Catholic church on Thursday morning, November 8, when a solemn requiem mass was said. His remains were followed to the cemetery by many physicians and by a large concourse of friends.

J. M. T

DANA, ANDERSON GREEN, M.D., was born at Cambridge, Mass, Sept. 17th, 1791. Died at Brandon, Vt., Aug. 20th, 1861. He was the son of Rev. Nathan Dana, a Baptist clergyman. At the age of 18 years he commenced the study of medicine. After three years as a student he attended a course of medical lectures in Philadelphia, in the winter of 1812–13. Shortly before this his father had removed with his family to Vermont. Doctor Dana, after leaving Philadelphia, went to Boston in the spring of 1813. and daily visited the hospitals for clinical study of surgery especially. Soon after he settled in Brandon, Vt., for medical practice, where he ever after lived. In July, 1813, he received his license to practice from Rutland County Medical Society, When Vermont Medical Society was chartered, in the autumn of 1813, Dr. Dana was named in the act of incorporation. He was ever afterward a member of this Society, and was its President in 1843 and 1844. One of the orginal members of the American Medical Association in 1846 and again in 1849. In 1830 he received an honorary degree of M.D. from Castleton Medical College, and in 1860 he received the honorary degree of LL.D. from Middlebury College. In August (11th) 1816, Doctor Dana married Miss Eliza A. Fuller, a writer of some prominence, especially of poetry, the daughter of Roger Fuller, Esq., of Brandon. Doctor Dana, as a physician, was a man of learning, of quick perceptions, of calm and deliberate judgment. He became very popular, a man everywhere known and respected. He mingled much in public affairs, in legislation, often presided at public meetings, always with marked ability, was a fluent speaker, with a ready knowledge of rules and facts.

He was physically strong and healthy, tall and well-formed. He had much personal dignity, combined with a pleasant, cordial manner, free from ostentation.

He was a member of the Congregational church, an exemplary Christian in deportment and character. During the last six or eight years of his life he suffered from disease of the heart, was obliged to retire from all active duties and live very quietly.

His life was long and useful, and he died lamented by a large circle of friends. A wise and good man gone to his rest. O. F. FASSETT, M.D.

TURNIPSEED, EDWARD B., M. D., died, aged 52, at Columbia, S. C., April 18, 1883. He was born in Richland District, S. C., and was educated at the Mt. Zion Institute. After graduating in medicine at the Medical College of the State of South Carolina, he pursued the study of his profession for two years in Paris; afterwards offering his services to the Czar of Russia, and acting as surgeon in Sabastopol during the seige. For his distinguished services the Czar rewarded him with three decorations, including the cross of Staune, and 1,500 roubles. During the late civil war, Dr. Turnipseed acted for a time as surgeon to the 12th Regiment. He then practiced his profession with much success in Columbia, where he was much beloved, by reason of his ability and his kindness of heart. He was fond of surgery, and he performed many capital operations. He had a singularly inventive faculty, and he constructed several ingenious surgical instruments. Dr. Turnipseed was an active member of the State Medical Association, and he was almost a pioneer in the organization of "Way-side" hospitals, which attained great perfection at the South during the late war. He has written an important paper on the subject.

P. PEYRE PORCHER, M. D.
Member of Committee S. Carolina Am. Med. Assoc'n.

WAR ON QUACKERY.

SPECIAL MEETING OF THE ILLINOIS STATE BOARD.—A special meeting of the State Board of Health was held on Saturday last, in Chicago, at which the President, the Hon. Newton Bateman, LL.D., of Galesburg; A. L. Clark, M.D., of Elgin; John McLean, M.D., of Pullman, and the Secretary, Dr. John H. Rauch, were present. The object of the meeting was mainly to take action in the cases of a number of medical men against whom charges of unprofessional and dishonorable conduct had been preferred. The charges against Dr. Frank B. Smith, formerly of Chicago, and lately of Peoria, and Dr. Alexander Jones, consisted not only in the claim that they were itinerant physicians, and that they went from place to place, soliciting medical custom, but that they were associated with notorious quacks and medical mountebanks or worse, Smith being employed by "K. & K.," a firm of typical charlatans, having their headquarters in Detroit. Jones, it was stated, had been emulating Smith's example, but his present whereabouts are unknown. After a thorough examination of the evidence offered in support of the charges, including written statements of various witnesses, the Board ordered the revocation of the certificates of these parties.